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VIRGINIA MEDICAL MONTHLY

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The incidence of postoperative wound infections, particularly among debilitated patients, presents a serious hospital problem.[1] These infections are caused in many cases by strains of staphylococci resistant to most antibiotics in common use.[1,2,3] In such instances, CHLOROMYCETIN should be considered, since "...the very great majority of the so-called resistant staphylococci are susceptible to its action."[4]

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Warning: Serious and even fatal blood dyscrasias (aplastic anemia, hypoplastic anemia, thrombocytopenia, granulocytopenia) are known to occur after the administration of chloramphenicol. Blood dyscrasias have occurred after both short-term and prolonged therapy with this drug. Bearing in mind the possibility that such reactions may occur, chloramphenicol should be used only for serious infections caused by organisms which are susceptible to its antibacterial effects. Chloramphenicol should not be used when other less potentially dangerous agents will be effective, or in the treatment of trivial infections such as colds, influenza, or viral infections of the throat, or as a prophylactic agent.

Precautions: It is essential that adequate blood studies be made during treatment with the drug. While blood studies may detect early peripheral blood changes, such as leukopenia or granulocytopenia, before they become irreversible, such studies cannot be relied upon to detect bone marrow depression prior to development of aplastic anemia.

References: (1) Minchew, B. H., & Cluff, L. E.: *J. Chron. Dis.* **13**:354, 1961. (2) Wallmark, G., & Finland, M.: *Am. J. M. Sc.* **242**:279, 1961. (3) Wallmark, G., & Finland, M.: *J.A.M.A.* **175**:886, 1961. (4) Welch, H., in Welch, H., & Finland, M.: Antibiotic Therapy for Staphylococcal Diseases, New York, Medical Encyclopedia, Inc., 1959, p. 14. (5) Hodgman, J. E.: *Pediat. Clin. North America* **8**:1027, 1961. (6) Bauer, A. W.; Perry, D. M., & Kirby, W. M. M.: *J.A.M.A.* **173**:475, 1960. (7) Petersdorf, R. G., *et al.*: *Arch. Int. Med.* **105**:398, 1960. (8) Goodier, T. E. W., & Parry, W. R.: *Lancet* 1:356, 1959.

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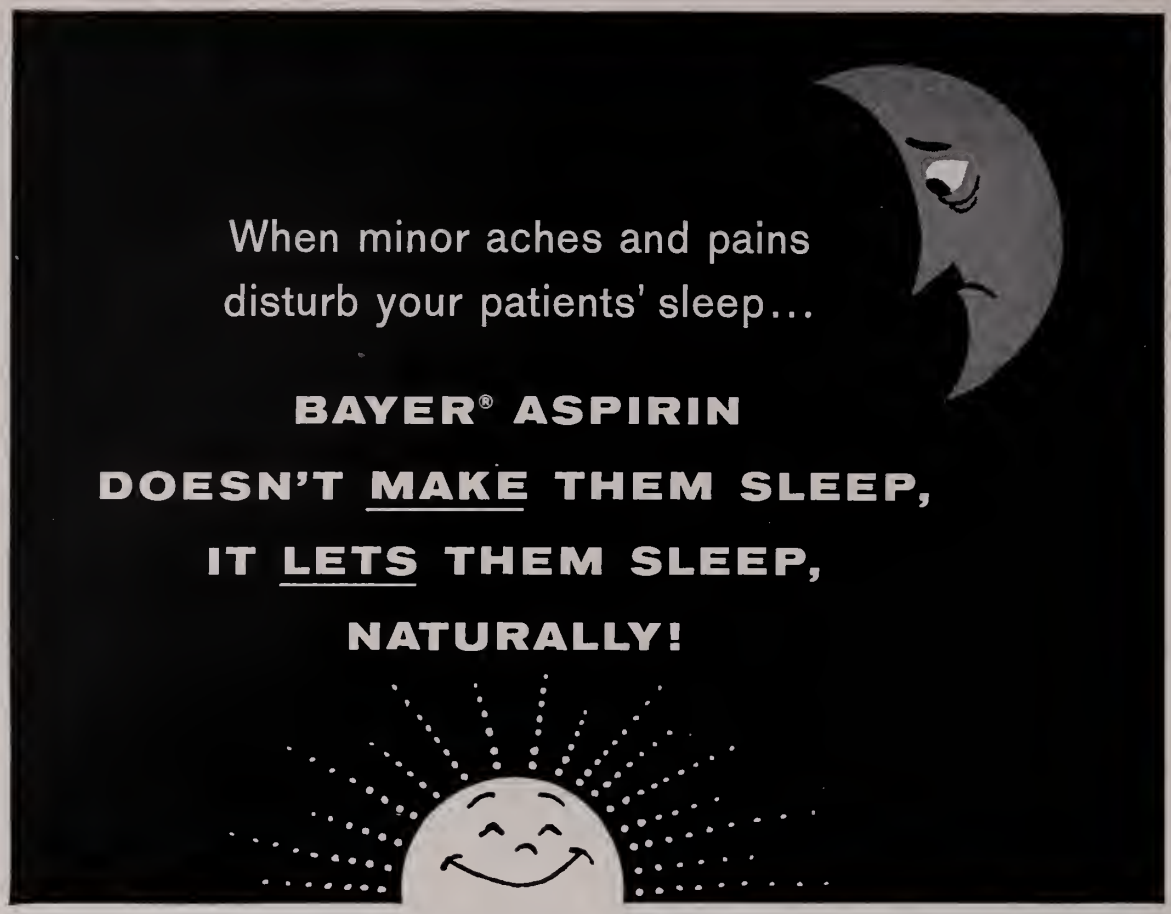
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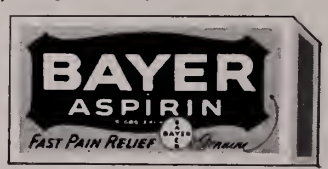
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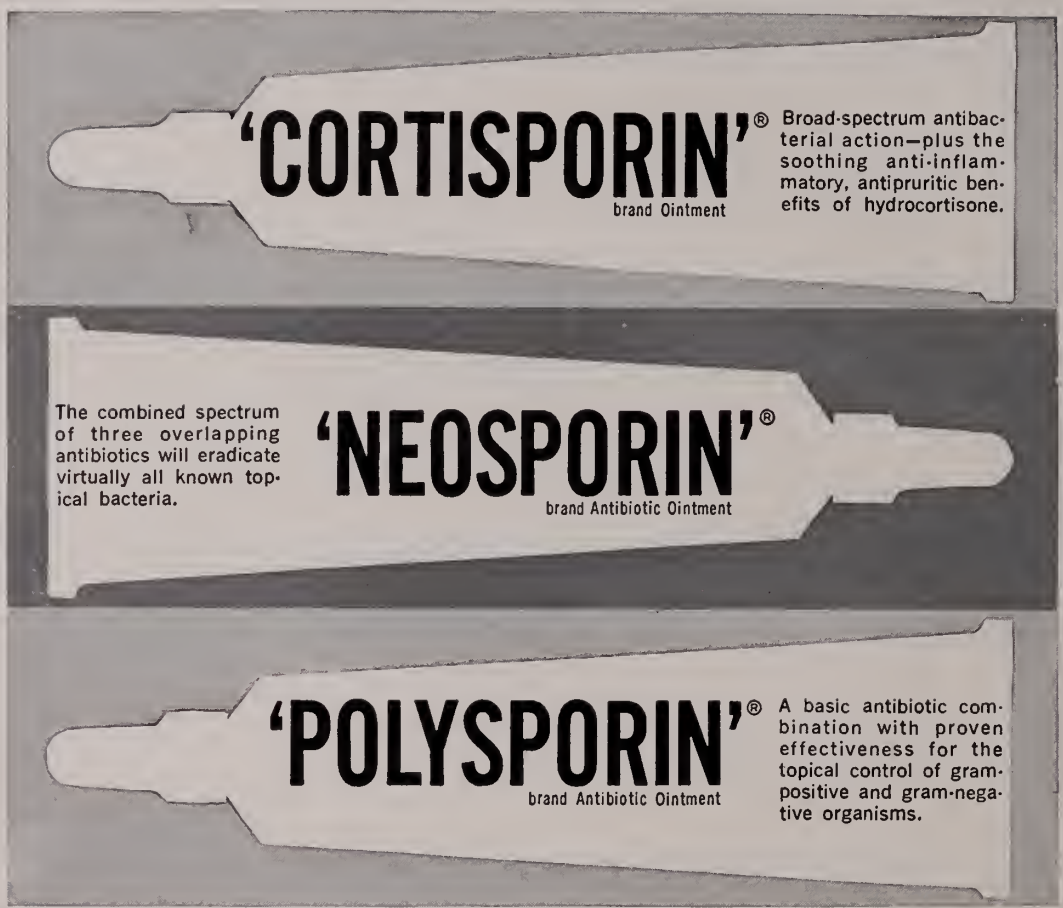
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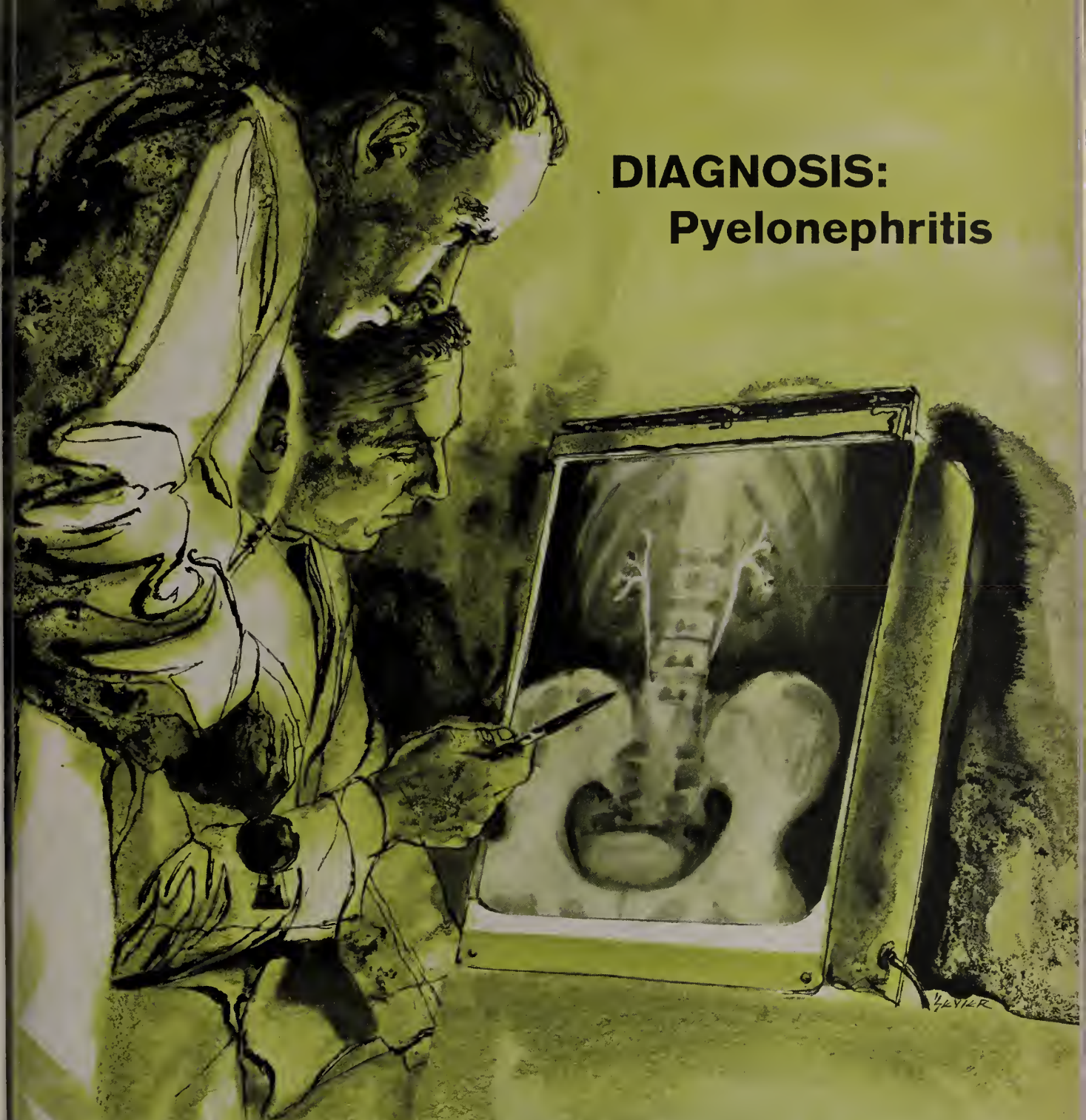
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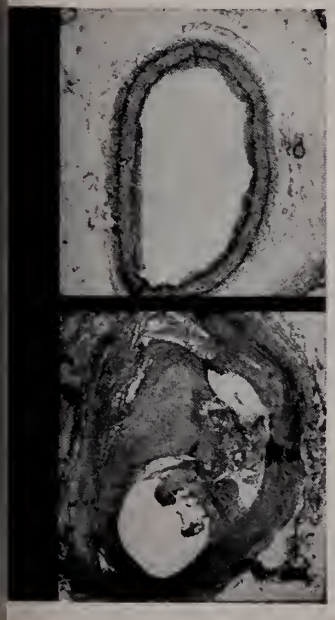
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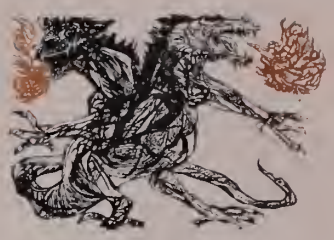
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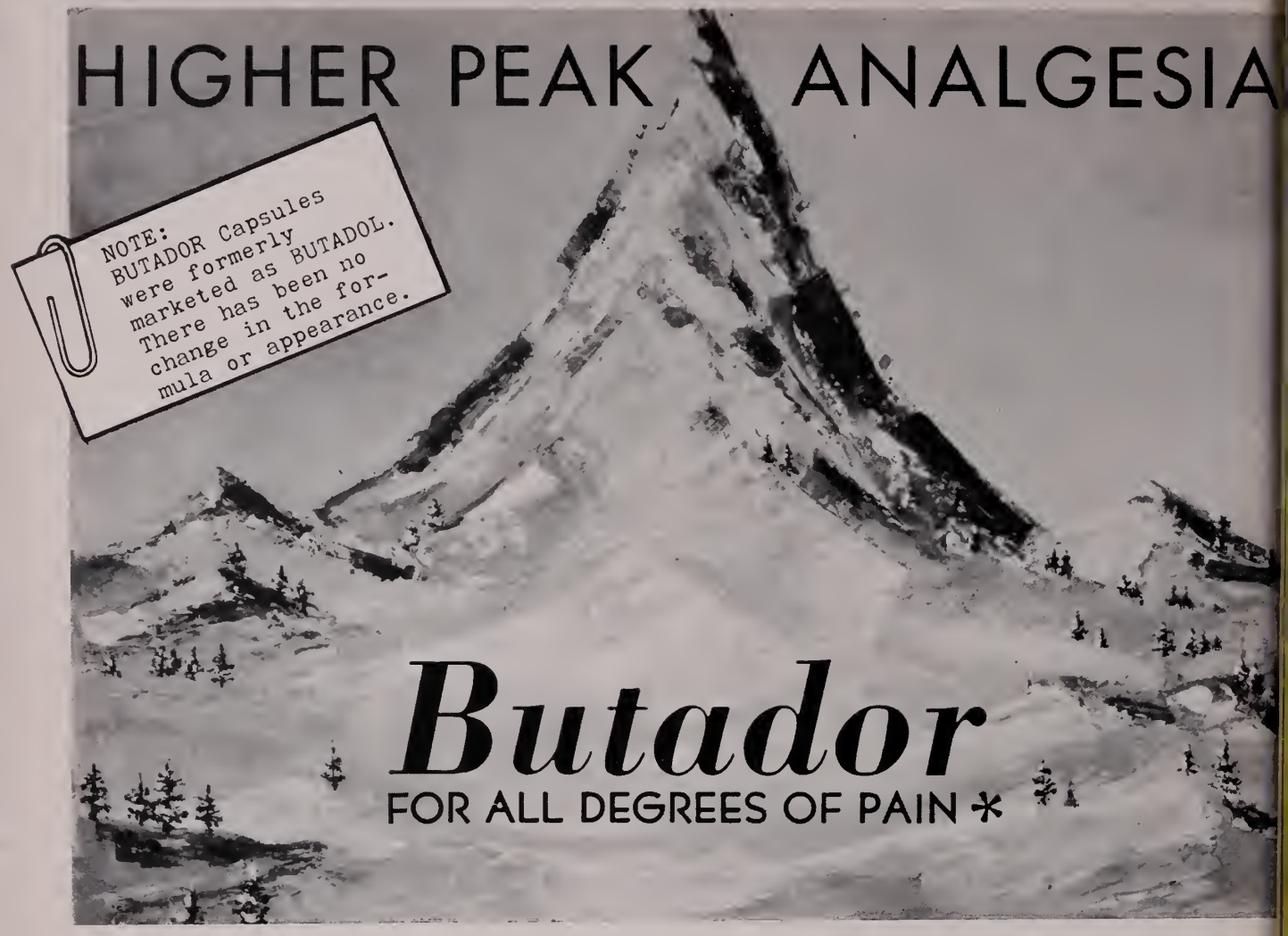
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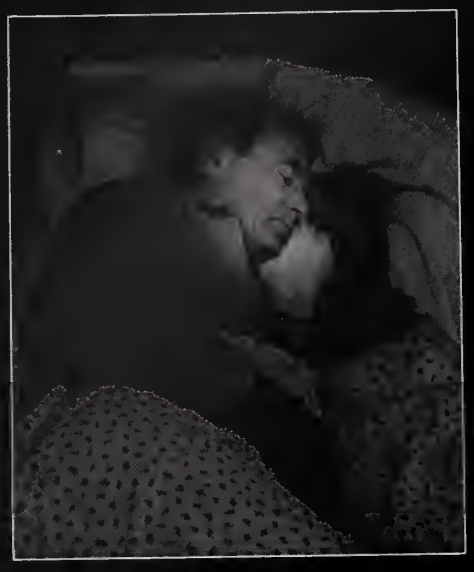
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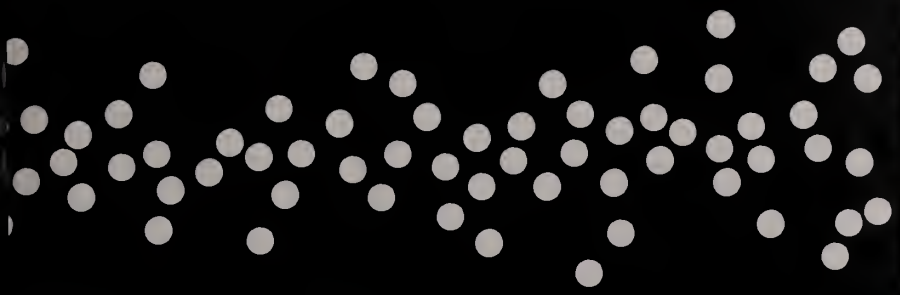
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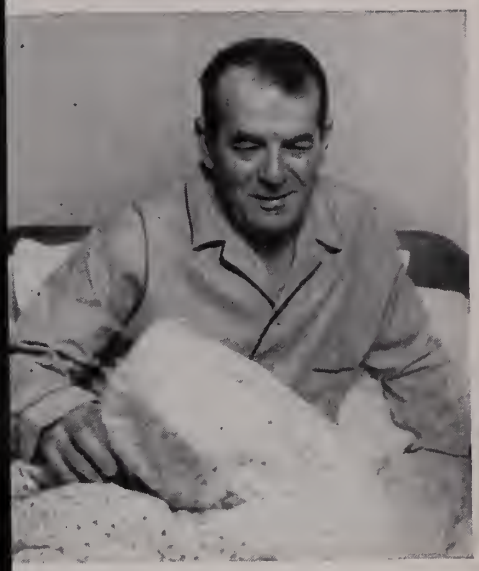


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MEDICAL MONTHLY

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Guest Editorial . . . .

Peace at MCV

AMONG THE most pleasant developments around town is the new rapport that seems to be growing between the Medical College of Virginia and the local medical community. It now is evident, looking back over the past eight months, that a bad situation had been permitted to fester too long.

At the college, a group of brilliant young medical school professionals, led by a strong dean, undertook to bring about changes they sincerely felt were desirable. In their zeal, they neglected to observe those rules of deference, those little graces, that are so inescapably a part of the "Virginia way" of doing things. The uptown doctors, for their part, evidently failed to make the overtures that might have kept antagonisms from arising in the first place.

Now things settle down. The MCV board, which at first reacted stiffly to the doctors' public criticism of trends at MCV, has been assured that no one is out to destroy the institution. The Richmond Academy of Medicine has quietly suppressed a report of its medical education committee. The college has made two excellent appointments—Charles P. Cardwell, Jr., the popular and able director of hospitals, is to serve as vice president of the college "with general responsibility in the area of community relations," and Dr. W. T. Hagood, Jr., of Clover, retiring president of the Virginia Academy of General Practice, is to serve as consultant to the college in the neglected area of the "family doctor." A couple of faculty resignations, effective in the fall, will further ease frictions. An associate dean is to be appointed. Much greater emphasis is to be given to MCV's whole program of public relations. The revolution in curriculum apparently will proceed at a more judicious pace.

All this is most encouraging. The Medical College of Virginia has an enormous potential of usefulness not merely to Richmond—as the Board has rather crisply pointed out, MCV is a *State* institution—but to the South as a whole. That usefulness can never be realized in an atmosphere of irritation and misunderstanding. Thankfully, the prospect is for clearing weather ahead.

—Richmond News Leader, May 21, 1962

Alteration in the Flocculation and Turbidity Test with Hypersplenism

Their Significance in Patients with Portal Hypertension

ARNOLD M. EPSTEIN, M.D.
ROBERT N. WATMAN, M.D.*
Columbus, Ohio

Hypersplenism influences the flocculation and turbidity tests and may be misleading when evaluating the status of the liver.

THE FUNCTIONAL STATUS of the liver has been shown to be of cardinal importance in selecting patients with portal hypertension for shunting procedures. Liver function tests often help in evaluating operative risks in these patients. Errors in diagnosis and management may occur, however, unless these tests are accurately interpreted.

These studies frequently distinguish intrahepatic from extrahepatic portal block. Normal liver function tests with proven esophageal varices are assumed to indicate extrahepatic portal block. Conversely, significant alterations of liver function tests suggest an intrahepatic obstruction. However, even with some degree of cirrhosis, normal values may be found.[1] Also, bromsulphalein retention may occur in extrahepatic portal obstruction since this test depends upon hepatic circulation as well as cellular function.[2]

Abnormal flocculation and turbidity tests have generally been considered strong evidence of liver disease since they depend upon changes in the protein constituents of the plasma.[3] Alterations in these tests in patients with portal hypertension have been related to surgical mortality.[4]

Secondary hypersplenism may be associated with congestive splenomegaly in patients with portal hypertension.[5] Since the spleen may participate in globulin synthesis,[6] the effect of hypersplenism on these liver function tests was investigated in the present study. This investigation consisted of (1) patients with no apparent portal system obstruction but with definite primary hypersplenic states, and (2) patients with extra-hepatic portal block of either portal or splenic vein.

In the period from January 1, 1954, to July 1, 1960, eighty patients falling in these groups were satisfactorily evaluated and are used in this study. Of these, seventy were in the hypersplenic group, ten were examples of splenic or portal vein occlusion. In the first group, the diagnosis of primary hypersplenism was made by complete hematological studies. In both groups, only patients who had complete liver function tests were included. Each patient had a liver biopsy during surgery.

This series then, consists of seventy patients with primary hypersplenism and of ten patients with splenic or portal vein block. This latter group demonstrated congestive splenomegaly and clinically secondary hypersplenism. All were shown by biopsy during surgery to have morphologically normal livers. In the total group, nevertheless, nineteen per cent had signifi-

From the Department of Surgery, The Ohio State University, Columbus, Ohio.
*Deceased.

cantly elevated flocculation tests and thirty-eight per cent had significantly elevated turbidity tests (Tables I and II). These

TABLE I

EXTRAHEPATIC OBSTRUCTION
(10 Cases)

*Cephalin Flocculation	±	1+	2+	3+	4+
Number of Patients	2	4	4	0	0
*Thymol Turbidity	15	15	20	25	30
Number of Patients	3	1	1	1	1

*Abnormal cephalin flocculation—2+ or greater.
Abnormal thymol turbidity—20 or greater.

TABLE II

PRIMARY HYPERSLENISM
(70 Cases)*

Cephalin Flocculation	±	1+	2+	3+	4+			
Number of Patients	49	15	4	4	3			
Thymol Turbidity	15	15	20	25	30	40	50	75
Number of Patients	41	4	13	2	6	1	1	2

*Only cases which had complete liver function tests are included.

findings suggest that under certain conditions abnormal flocculation and turbidity tests may exist in the absence of liver disease. In this study, it seems logical to suggest that the spleen is involved, since splenic pathology is evident.

In the primary hypersplenic group (Table III), elevations of the tests occurred in the presence of all hypersplenic syndromes (idiopathic thrombocytopenic purpura, congenital hemolytic anemia, neutropenia and pancytopenia. These alterations appeared to be directly related to the hypersplenic state since in each case an apparently normal liver was found at surgery and confirmed with biopsy. It may be that in the presence of an abnormal spleen, qualitative or quantitative alterations in serum globulin account for the results.

Secondary hypersplenism should be suspected in all patients with portal hypertension, regardless of whether an extrahepatic

TABLE III

HYPERSPLENIC SYNDROMES
ABNORMAL FLOCCULATION AND TURBIDITY TESTS

Cephalin Flocculation	2+	3+	4+
Idiopathic Thrombocytopenic Purpura	1		
Congenital Hemolytic Anemia	2	1	1
Neutropenia	1	2	
Pancytopenia		1	2

Thymol Turbidity	20	25	30	40	50	75
Idiopathic Thrombocytopenic Purpura	5	1	1	1	1	
Congenital Hemolytic Anemia	5	1	2			
Neutropenia			2			1
Pancytopenia	3		1			1

or intrahepatic obstruction exists. In a recent review from this clinic of fifty-eight patients with portal hypertension from both intrahepatic and extrahepatic causes, seventy-eight per cent had clinical evidence of secondary hypersplenism.[7] Leukopenia, thrombocytopenia or anemia was observed in varying degrees and the diagnosis was supported and confirmed by bone marrow study. Compensatory bone marrow hyperplasia is seen in those elements exhibiting peripheral cytopenia.

It is now recognized that with both intrahepatic and extrahepatic portal block, congestive splenomegaly eventually occurs. The incidence of hypersplenism in these patients may be related to the duration and persistence of the venous hypertension.[8] Patients with esophageal varices will fall into this group since varices usually are indicative of prolonged portal hypertension.

Patients with pure extrahepatic block may have alteration in these tests, as in our series. The importance of total evaluation of the patient, including all liver function studies, becomes evident. Liver disease extensive enough to alter these results markedly would normally be a contraindication to a shunting procedure. It must be kept in mind, however, that elevation of these tests in the cirrhotic patient may be augmented by the hypersplenic state.

For this reason, hypersplenism should be considered in all patients with portal hyper-

tension. The diagnosis may be suspected from the peripheral blood picture and confirmed with bone marrow examination. If hypersplenism exists, then marked elevation in turbidity and flocculation tests must be evaluated with this in mind, especially if other liver function tests are only moderately altered. In this type of patient, multiple needle liver biopsies may provide additional information concerning the stage of the disease process. Elevation of the flocculation and turbidity tests alone, in the patient with portal hypertension, is a definite indication for splenoportography, since in these cases an extrahepatic block probably will be present.

Summary

Elevated flocculation and turbidity tests may occur both in primary hypersplenic syndromes and in pure extrahepatic portal block with secondary hypersplenism. Even in patients with liver disease, hypersplenism probably augments minimal elevations of these tests to levels which would normally contraindicate surgery. In patients with portal hypertension, the presence of hypersplenism may be suggested by changes in the peripheral blood picture and confirmed with marrow examination. Elevated flocculation and turbidity tests may require further diagnostic evaluation. For this purpose, needle liver biopsies and splenoportography are recommended. Elevation of these tests in patients with portal hypertension may not necessarily contraindicate a shunting procedure.

*The majority of patients in this study were evaluated carefully by Drs. Charles A. Doan, Bruce K. Wiseman, Robert Wall, Henry Wilson and Bertha Bouroncle of the Department of Hematology.

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Drug Industry Contributions

All American industry has contributed, but I must give a special vote of thanks to the pharmaceutical industry, which has contributed in excess of $1 million in cash and drugs to our effort. I have no idea how many other foundations like our own are able to carry on their work because of this great industry, but because this industry has a heart, this award belongs as much to them as it does to me.—William B. Walsh, M.D., founder of Project HOPE, on receiving 4th Annual Health U.S.A. Award.

Common Plastic Procedures in Ophthalmology

RONALD B. HARRIS, M.D.
Roanoke, Virginia

Much of the plastic surgery involving the eyelids can be performed by the ophthalmologist with good results. Some of these procedures are described.

IN RECENT YEARS most ophthalmologists will readily do intraocular surgery; yet when it comes to doing simple plastic procedures on the eyelids they will quickly leave these for other men, either specializing in plastic surgery or in ophthalmic plastic surgery. This is a regrettable trend because there are many simple procedures about the eyelids which the general ophthalmologist can do easily and with good results.

Probably one of the most difficult phases of plastic surgery of the eyelids is the correction of ptosis. Man's ingenuity has been racked for many years to devise surgical techniques for the elevation of the drooping eyelid. There are probably in the neighborhood of 100-150 such procedures with small variations and modifications. In doing ptosis surgery, one should analyze the case very carefully before any surgery is done and the best results will be obtained in those cases in which some procedure on the levator is performed. A procedure utilizing the frontalis muscle or suspending the lid from the frontalis muscle should be reserved for those cases in which no other procedure can be done.

Ideally, in any ptosis surgery, there are several things we would like to obtain from the operation. We would like to have the same amount of elevation of the eyelid as we have in the other eye in all positions of gaze. We would like to have the lid folds match and we would like to have normal winking and certainly normal lid closure in sleep. These things are the ideal situation and unfortunately cannot be obtained in every case. One should carefully analyze the amount of ptosis that the patient has by measuring the amount that we find in eyes down, in eyes looking straight and in eyes looking up. In other words, in many patients with the eyes looking down there may be no ptosis, in looking straight ahead there may be some or no ptosis, and in looking up there may be ptosis. This may be the only position that any ptosis is seen. This will give us some idea just how many millimeters of ptosis the patient has in each position of the eye, and if there is ptosis in all three positions the surgical procedure is going to be far more extensive than if there is just ptosis in looking up. The strength of the levator should be checked by holding the frontalis muscle so that the patient cannot utilize this muscle. Most of these patients have become quite adept at holding one eyebrow higher than the other to get some elevation of the eyelid, and this should be counteracted. By judging this we can find out exactly how good the levator is and by noting the patient's lid position in looking down and then in looking up, we can see how much movement of the eyelid has taken place. If the patient has 8 m.m. of action, that is, the lid moves 8 m.m. between these two positions, we know that we have good function of the levator and certainly a procedure on the levator is going to work satisfactorily. If we have less than 5 m.m. then we are going to have to do more of a

Presented before the Virginia Society of Ophthalmology and Otolaryngology, May 5, 1961, Roanoke.

resection, although it is still advisable to work on the levator. Many authors believe that as long as there is any levator function available at all, this muscle should be tackled before considering any other procedure.



Fig. 1. Ptosis of left eye complicated by trauma and four previous ptosis operations.

We must also rule out pseudoptosis, that is, a ptosis as a result of hypophoria. In cases of hypophoria, a pseudoptosis will sometimes be produced and certainly if the hypophoria is corrected then the ptosis will be corrected without any surgery on the eyelid itself. Also, make sure the patient does not have the Marcus Gunn, or jaw winking phenomenon. If this is present, the line of surgery is entirely different than when it is not present. If the lid is completely covering the pupil, one should first uncover the pupil by holding the eyelid up and seeing whether the patient has double vision. Certainly if the patient has double vision and you correct the ptosis, or elevate the lid, he is going to be more unhappy than he was with just a drooping eyelid. Along the same line, if there is no Bell's phenomenon, the patient will end up with an exposure keratitis which is once again a very unhappy situation.



Fig. 2. Three weeks following a plastic repair of eyelid combined with a Motais-Berke procedure using the superior rectus.



Fig. 3. Traumatic ptosis due to severing of Levator (three months after accident).

Ptosis may be divided into: congenital, which is the commonest; acquired; unilateral and bilateral. The acquired types are usually from traumatic injuries or are in women in their fifties and sixties when their lids become very flaccid and their levator function is decreased with no other associated disease such as myasthenia gravis. In the congenital type, probably 70-75% have some levator function with a good or normal superior rectus function. These are the cases that will readily lend themselves to levator

resection. The others fall into the group with either a weak superior rectus and weak levator, or the jaw winking group. This group of jaw winking should not have any levator resection although they apparently have a good levator function, but they should have a large portion of their levator excised and then the lid suspended from the superior rectus. This type of procedure should certainly be held off as long as possible, until the child is at least ten or twelve years of age. All types of ptosis surgery fall into either a group using the frontalis, the superior rectus, or the levator. As far as the levator resections are concerned there are many approaches, using either the conjunctival approach or the skin approach. For



Fig. 4. Repair of ptosis by re-suturing Levator to remnants of tarsal plate.

the occasional operator, certainly the skin approach is simpler and the amount of correction obtained is more than that obtained through the conjunctival route. The only disadvantage is that if an over-correction is obtained, it does not correct itself as readily as that obtained through a conjunctival route. Using the skin approach it is easy to isolate the fibers of the levator, to separate them from the tarsal plate and also identify the conjunctiva and the fibers and Mueller's muscle. In doing this type of procedure, a better result is obtained if a portion of the conjunctiva and Mueller's muscle is resected, as well as the levator muscle. Once the muscle is isolated and the lateral horns are cleared, the muscle can be sutured by various techniques back on to the tarsal plate. It is a good idea to fix the skin



Fig. 5. Procedure for temporary Tarsorrhaphy.

incision by some suturing technique so that you get an in-dimpling and a good lid fold which corresponds with the lid fold of the other eye. Most books underestimate the amount of the correction you will obtain by



Fig. 6. Mucous membrane graft in cul-de-sac to repair cicatriceal defect. Note the stay sutures through periosteum of orbital margin.

resection and state that probably for every 2 m.m. of resection you will get a 1 m.m. elevation of the eyelid. In my experience this

is not true. It is very unusual to get much elevation without doing a resection of at least 8 m.m. and for the larger amount of ptosis at least 10-12 m.m. has to be resected. In utilizing the superior rectus, it is a good idea to resect the muscle before re-attaching to the eye, such as in the Motais-Berke procedure, otherwise some degree of hypophoria will result. The results here are not nearly as good as those obtained with the levator, but still better than those using a frontalis procedure. As far as the frontalis procedures are concerned, there are many variations. The Friedenwald Guyten suture is probably the simplest and for a short term thing may prove satisfactory. It has the bad habit of becoming infected and its usefulness is limited. Some type of fascial suspension using fascia lata may be utilized. Similarly,

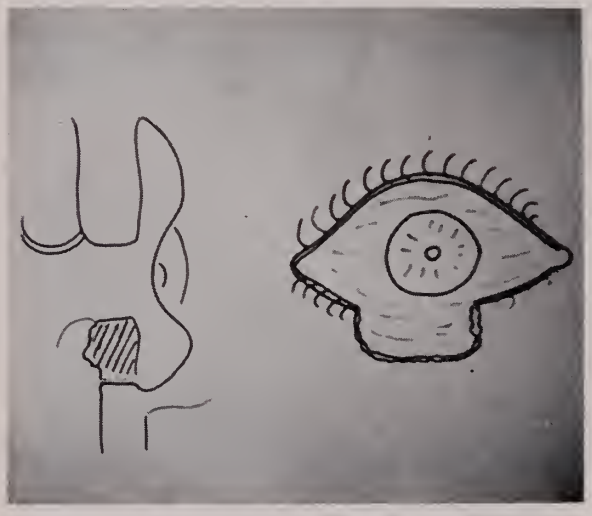


Fig. 7. Large lid defect as a result of wide excision of malignancy.

slips of orbicularis muscle may be used.

A simple procedure, which is sometimes done very poorly, is that of temporary tarsorrhaphy. It is very easy to obtain a good result by excising two rectangular areas, one on the lower eyelid and two on the upper eyelid, opposing each other, excising a small block and then splitting the lid margin and suturing these firmly together for a period of at least a week to ten days. This can be readily reopened and leaves no permanent disability. A more permanent tarsorrhaphy can be obtained almost in the same way except by splitting both lid margins completely and bearing half of the lower lid between the skin and the tarsal plate of the upper eyelid, and then suturing it in place making sure all the cilia are pointing outwards.

Entropion probably presents one of the commonest plastic procedures that we are confronted with. It can be divided into cicatriceal and non-cicatriceal. The cicatriceal



Fig. 8. Hughes technique for repairing this type of defect. The upper tarsal plate and conjunctiva is separated and brought down to fill defect; skin is brought up to fill in cutaneous defect. (see text)

type is due to scarring of the cul-de-sac and conjunctiva and to correct this we must restore the cul-de-sac with a mucous membrane graft. This will be mentioned later in the article. The non-cicatriceal type is either atonic or spastic. The atonic, which we find sometimes in children and infants, can be corrected by excision of the excess skin or using the Gaillard suture as a temporary measure. The commonest one that we see is the senile spastic entropion which for years has been treated by different techniques and every year one or two more techniques are reported. I think that if the individual has a technique which works satisfactorily he should certainly stick to it. The Zeigler puncture has been a technique that has been used for years, with and without results. I, personally, find that it is not too satisfactory and you can do some other more permanent surgery in about the same time

as it takes to do a Zeigler puncture. One that we have had satisfactory results with is a modified Wheeler procedure, where an incision is made 3 m.m. below the lid margin from the inner 2/3 of the lid margin to beyond the outer canthus. This skin is separated over the orbicularis and a 3 m.m. band of the orbicularis is separated and is incised along its upper and lower margin to form a muscular slip. This slip is then at its outer end sutured with 3-0 chromic to the periosteum of the malar eminence. This gives a tightening to the eyelid with a rolling out of the lid margin. Any excess skin is then excised and the incision is closed with 6-0 black silk. This takes some ten minutes to do at the most and it gives very satisfactory results. Post-trachoma entropion which is seen usually in the upper eyelid is very infrequent in this country and will not be covered in this dissertation.

People with ectropion have difficulty because of chronic irritation in their eyes and epiphora. Here again the types can be divided into the cicatriceal, non-cicatriceal, spastic and atonic. The cicatriceal is repaired by excision of the scar and grafting. Spastic ectropion in children is usually self-limited and no surgery is necessary. In the older age group we come across the atonic which can be due to a facial paralysis. In this type a small lateral tarsorrhaphy can be done which will give enough fixation to hold the eyelid up satisfactorily and still let the patient use his eyes in looking straight ahead and in the opposite direction of gaze. In the other group, the idiopathic atonic group, the Kuhnt-Szmanowski procedure, where a wedge of tarsus and conjunctiva is removed and then a similar wedge using the sliding flap technique is removed in the lateral cheek area, is probably still the most satisfactory technique available.

Many times in these plastic procedures around the eyelid, we must use skin grafts and although it is difficult to match the skin exactly to the color and texture of the eyelid we can approximate it. We do have the advantage that there is a good vascular supply around the eyelids and these grafts heal very well. In grafting around the eyelid, we usually use a split thickness graft which is nourished by the granulation tissue and serum. There is no papillary dermal or subdermal plexus of capillaries present in this type of graft. We can also use a thick split and a full thickness graft. These have capillaries which survive and actually become recanalized. As far as taking is concerned, a thick split thickness will take more readily



Fig. 9. Large basal cell carcinoma involving lower lid, right eye.

than a full thickness graft, although you get more contracture of the graft and can use a large graft to fill a given area.

In handling a graft, one should always be very gentle and not allow any hemorrhage to collect underneath it. The use of ointments and vaseline gauze should be discouraged in these cases following surgery. A dressing should be applied over a piece of surgical silk which is placed next to the graft, then a mild pressure bandage will produce a dressing that is easy to remove and does not stick to the graft. There is always a tendency to peek at these grafts too early to see what it is doing, but if the operator can withhold for four or five days the results will be superior. In a great many of the reconstructive procedures around the eyelid, we must use mucous membrane and this can be obtained either from the opposite eye, or the other cul-de-sac of the same eye, or from the mucous membrane of the mouth. Lately, peritoneum has been used for repair of conjunctival defects, although

this seems like an unnecessary procedure when mucous membrane from the mouth and other eye is available. Skin can be obtained from the upper lid, the back of the ear, or the forearm. It is said that skin of the prepuce is very satisfactory for this type of surgery. I have never used it and this is becoming quite a scarcity at any rate. Probably the most difficult thing to replace is the tarsal plate and there is no satisfactory substitute for this, except more tarsal plate. This can be obtained by a sliding flap technique which will be discussed later. In repairing the eyelid, most texts state that the edges should be dove-tailed and fitted together and then sutured. This is often technically very difficult to do and unnecessary. In injuries to the lid margin, if the edges are fresh and cleaned up and excised sharply, a simple figure-of-eight suture through the defect and up through the upper lid will produce a clean repair of the wound. To obtain skin to repair these other lid defects, a sliding flap or a free graft may be used. When a large portion of the tarsal plate has been removed, it must be replaced by the technique of Hughes, where the tarsal plate is freed in the upper lid and then brought down to fill in the defect and then a sliding skin flap brought over the top of it. This is left in place and the lids closed together for a period of at least six months. If it is freed before this time, we get a shrinking of the lid margin and a defect. This is the most satisfactory technique for replacing tarsal loss. In replacing the conjunctiva, a mucous membrane graft can be used to fill in the cul-de-sac and then a conformer put in the eye to hold it in place. It is important that sutures are put through the inferior cul-de-sac and then through the periosteum of the lid margin to hold the mucous membrane graft in position.



Fig. 10. Defect repaired by sliding tarsal flap of Hughes.

Though not directly in the field of plastic surgery of the eyelid, a repair of recurrent pterygium, the so-called malignant pterygium, is always with us. A great many authors recommend the use of radiation to arrest the regrowth of these pterygiums. Radiation is not without hazard and there are several procedures that have proven very satisfactory without the use of radiation. The first of these is the use of a mucous membrane graft to block the regrowth of the pterygium. The pterygium is excised with a goodly portion of normal cornea around its head and it is buried as in a McReynold's operation. A mucous membrane graft is then removed from the mouth and is thinned down so that the graft is extremely thin. It is then sutured in place in the defect where the pterygium was, with either virgin silk or 6-0 black silk. These grafts take very nicely and completely block the regrowth of the pterygium. The only disadvantage is that they are somewhat unsightly, although over a period of months



Fig. 11. Repair of recurrent pterygium by either a mucous membrane graft or corneal lamellar graft.

they thin out and become less of a cosmetic defect. The second technique, which has proven most satisfactory in the treatment of these recurrent pterygium, is that of using a Lamellar corneal graft. Using a trephine, an area of the cornea is outlined beyond the head of the pterygium by at least 1 m.m. to 2 m.m. and going through at least one-half of the thickness of the cornea, preferably 2/3 of the thickness of the cornea, the edge of this is then dissected and towards the limbus and along with the cornea the head of the pterygium is excised. This portion is excised and the balance of the pterygium is buried, as it is in the McReynold's procedure. A circular Lamellar graft of the same thickness is then obtained from the donor eye and placed in position on the cornea to fill in the resulting defect. The edge is sutured to the cornea and then at the limbus the excess cornea from the donor graft is removed and this edge is sutured to the sclera. These heal very well with a good visual and cosmetic result and are probably more effective in preventing the recurrence of a pterygium than radiation.

I have tried to present in this paper some of the common procedures that can be attempted by the ophthalmologist not specializing in plastic surgery. These are procedures that have proven to be satisfactory in our hands and are not necessarily the best procedures available.

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Monthly Report of Bureau of Communicable Disease Control

	May 1962	May 1961	Jan.-May 1962	Jan.-May 1961
Brucellosis	0	2	4	7
Diphtheria	0	0	5	4
Hepatitis	119	180	714	631
Measles	1379	2136	7619	8328
Meningococcal Infections	6	7	23	29
Aseptic Meningitis	1	3	7	8
Poliomyelitis	0	0	2	0
Rabies (In Animals)	16	16	72	134
Rocky Mountain Spotted Fever	0	5	3	8
Streptococcal Infections	679	543	8622	3534
Tularemia	1	0	6	10
Typhoid Fever	2	0	7	8

Pericardial Tamponade, a Complication of Acute Non-Specific Pericarditis

A Survey of the Literature and Report of Two Cases

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Although an infrequent complication of acute non-specific pericarditis, pericardial tamponade does occur. Prompt recognition and treatment of this medical emergency is essential.

SINCE THE PUBLICATION in 1942 by Barnes and Burchell[1] regarding acute non-specific pericarditis, there have been numerous reviews concerned with this complex syndrome.[2-18] For the most, part, however, these reports have stressed the benign nature of this illness and only a few authors have placed particular emphasis on the immediate complications and sequelae which may arise during the natural history of this illness.[19-28]

The purpose of this report is to survey the literature regarding the incidence of pericardial tamponade as a complication of acute non-specific pericarditis, to present two patients who developed this complication during the course of their illnesses, to review the important clinical and laboratory features of pericardial tamponade, and to emphasize that failure to recognize this medical emergency, or delay in initiating treatment, may lead to death.

Case I. C. K. (UVa 447365) an 18-year-old white female, was admitted to the University of Virginia Hospital on June 19, 1958, with the chief complaint of "pain in my heart". This patient had been in good health until one month before admission when she developed a sore throat associated with mild substernal pain accentuated by breathing, a non-productive cough, and increasing lethargy. She was admitted to a local hospital for evaluation at which time she was noted to have a low grade fever and "infected tonsils". She was given penicillin and streptomycin for several days, following which she improved; however, occasional substernal discomfort persisted. Three days prior to this admission she experienced an exacerbation of the chest pain which was more severe than previously, stabbing in character, made worse by changing position or by breathing and occasionally radiating to her left shoulder. She consulted her physician who found a pericardial friction rub associated with an enlarged heart and referred her to this hospital for further evaluation.

There was no history of tuberculosis, rheumatic fever, skin rash or joint pains.

Physical examination on admission revealed an acutely ill, anxious young white female, markedly dyspnoeic, complaining of

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severe chest pain. Her temperature was 104° F., respiratory rate was 34/min., radial pulse 120/min. and blood pressure was 100/80 associated with a pulsus paradoxus of 14 mm. Hg. The skin was hot and dry. The head, ears, eyes, nose and throat were normal. There was moderate distention of the neck veins but no venous pulsations were present. No significant lymphadenopathy was noted. Examination of the chest revealed dullness at the left base associated with bronchial breathing. The P.M.I. was in the 5th interspace, 11 cm. from the left sternal border, and a loud pericardial friction rub was heard over the entire precordium. The rhythm was regular and the heart sounds were distant. The abdomen was slightly distended; however, the liver and spleen were not palpable. The remainder of the physical examination was within normal limits.

The admission diagnosis was an acute pericarditis of undetermined etiology with pericardial tamponade.

Laboratory studies revealed a white count of 7,000 with 87% polymorphonuclear leukocytes. Urinalysis and stool examination were normal. The sedimentation rate was 33 mm. in one hour. Heterophile, cold, brucella, and tularemia agglutinations were normal. C-reactive protein and antistreptolysin-O titer were normal. Tuberculin skin test was negative at 1:333 dilution. L. E. Preps were negative on three occasions. Three blood cultures revealed no growth. Venous pressure was 180 mm. of saline. The electrocardiogram revealed low voltage complexes and T wave changes consistent with pericarditis. Chest x-rays which had been taken 16 days prior to admission were reviewed. The earlier film revealed a normal heart size and configuration with clear lung fields; however, the one which had been taken on the day prior to admission showed a marked increase in heart size associated with a change in the shape of cardiac silhouette. (Fig. 1)

Cardiac fluoroscopy was performed shortly after her admission and revealed a large



Fig. 1. Chest x-ray before pericardial aspiration.

"water-bottle" shaped heart with markedly diminished pulsations. A pericardiocentesis was performed and approximately 250 cc. of serosanguineous fluid was removed. This procedure was followed by immediate improvement in the patient's clinical condition. Air (150 cc.) was injected into the pericardial sac as shown in Figure 2. Examination of the pericardial fluid revealed 300 white blood cells per cu. mm. with 52% lymphocytes and 48% polymorphonuclear leukocytes, and the sp. gr. 1.018. Gram and acid fast stained smears revealed no organisms. Cell block showed no tumor cells and the routine and tuberculous cultures were negative.

The patient remained acutely ill for the first two days, following which she progressively improved. Penicillin and streptomycin were administered on the second hospital day and continued for seven days. Her temperature returned to a normal range on the sixth hospital day. There were no further signs of tamponade and the venous pressure returned to the normal range. Cardiac

fluoroscopy prior to discharge revealed a normal size and configuration of the cardiac silhouette with normal cardiac pulsations. The patient was completely asymptomatic at the time of discharge. Figure 3 shows an x-ray taken just prior to discharge. The heart size is normal and air can be seen in the pericardiac sac. At an 18 month follow-up, her local physician reported the patient to continue completely asymptomatic with no residual evidence of heart disease.



Fig. 2. Chest x-ray immediately after aspiration.

Case II. F. H., a 41-year-old white male, was admitted to the Chesapeake and Ohio Hospital in Clifton Forge, in 1947, with a history of sore throat and non-productive cough of one month's duration. Three days prior to admission he awoke during the night with malaise, fever and generalized muscular aching. Orthopnoea, cough, and anterior chest pain which was accentuated by respiration soon followed. These symptoms progressed in severity and he was admitted to the hospital for further evaluation and treatment.

Physical examination at the time of admission revealed an undernourished white male who appeared ill but in no acute distress. There was a low grade temperature elevation, the blood pressure was 105/90 and pulsus paradoxus was present. The throat was mildly injected. The heart was enlarged to the left, the sounds were distant and muffled, and a loud to-and-fro friction rub was heard along the left sternal border. The liver dullness extended 4 cm. below the right costal margin with tenderness over this area. No peripheral edema was present.



Fig. 3. Chest x-ray on day of discharge from the hospital.

Significant laboratory findings revealed the white count to be 11,850 with 81% polymorphonuclear leukocytes, 18% lymphocytes, and 1% eosinophiles. The sedimentation rate was 25 mm. in one hour by the Cutler method. Chest x-ray showed a marked enlargement of the cardiac silhouette and on cardiac fluoroscopy, markedly diminished cardiac pulsations were found. An orthodiagram revealed the transverse diameter of the heart to be 14.2 cm. or 31.5% above the predicted normal. An electrocardiogram on admission showed slight elevation of ST segments and inversion of T

waves consistent with pericarditis. The venous pressure was 219 mm. of saline.

Three days after entering the hospital the patient began to complain of more chest pain and dyspnoea. Shortly after this he was found on his hands and knees gasping for breath. Pericardial aspiration was performed immediately and 200 cc. of serosanguineous fluid was withdrawn. This procedure was followed by relief of the patient's symptoms. Smears and cultures of the pericardial fluid revealed no bacterial growth. Penicillin therapy was instituted at this time.

The remainder of his hospital course was characterized by progressive improvement and he was discharged after a two week hospitalization, completely asymptomatic. Reevaluation 27 days later revealed a normal physical examination and the previous electrocardiographic and fluoroscopic findings had returned to normal.

This patient has been followed by one of us for 13 years, during which time he has remained in good health and has shown no evidence of residual heart disease.

Discussion

The diagnosis of acute non-specific pericarditis generally connotes an excellent prognosis for ultimate recovery. This disorder is associated with very few and infrequent acute complications, permanent sequelae, or deaths; however, these occasionally occur and must be anticipated when managing a patient with this usually benign disorder. A survey of the literature revealed only eleven reported cases in whom pericardial tamponade developed during the course of this illness.[15,17,21,23-25,27,29] Of these eleven cases, however, one-half expired, probably as a direct result of this treatable complication, and this represents 50% of the total number of fatalities which have been reported in association with this syndrome.[15,19,21,23,27-30] Two of the above cases that developed acute pericardial tamponade and expired as direct result, were receiving anticoagulant therapy because the presumptive diagnosis of a myocardial infarction had been made. The development of a hemopericardium in these two cases was thought to be secondary, at least in part, to anticoagulation since the inflamed pericardial surface is prone to bleed under these circumstances.[21,29] The authors emphasize the important fact that anticoagulation is contraindicated in acute nonspecific pericarditis, and when the differential diagnosis of this disorder and a myocardial infarction is in doubt, this form of therapy should not be instituted.

The accumulation of pericardial fluid is encountered in pericarditis of all types.[11] When this fluid accumulates rapidly as little as 150-200 cc. may result in pericardial tamponade;[31] however, if there is a slow accumulation, the pericardium accommodates and a liter or more may be necessary before compression interferes significantly with normal cardiac hemodynamics. In either event, the elevation of intrapericardial pressure interferes primarily with diastolic filling of both ventricles and as this progresses there is a decrease in cardiac output, a rise in venous pressure, and a fall in blood pressure with their consequences.[32-35] An effective cardiac output is temporarily maintained by a compensatory tachycardia; however, at a critical level of intrapericardial pressure as shown experimentally by Evans et al[36] there is a sharp fall in cardiac output and blood pressure which is followed by clinical shock and death, if this mechanical obstruction is not relieved.

The diagnosis of acute pericardial tamponade is often difficult to establish clinically.[25] Dyspnoea is present in nearly all cases and is especially distressing in far-advanced tamponade. Another common symptom in this syndrome is orthopnoea, but it occurs less frequently than dyspnoea and its absence sometimes helps to differentiate this condition from acute pulmonary edema. When tamponade is secondary to acute non-specific pericarditis, the history of chest pain can be elicited in over 95 per cent of the cases.[8,10,14] When this is characteristic of pericardial pain, that is, anterior

or substernal in location, and varies with respiration, it should call attention to the possibility of pericarditis and thus to pericardial tamponade. The presence of a pericardial friction rub, which may be very loud, in the presence of a pericardial effusion has been recognized for many years,[31] and in one series 24 or 34 patients with pericardial effusions had this finding. Pulsus paradoxus is almost always found in the presence of pericardial tamponade, and when present it is a valuable diagnostic sign pointing to the presence of this syndrome. Beck has stressed the clinical triad of a rising venous pressure, a falling arterial pressure, and a small quiet heart in the diagnosis of acute pericardial tamponade.[38] The presence of a strong apex beat, relatively normal heart sounds and ventricular pulsations, as seen by fluoroscopy are certainly infrequent findings in pericardial tamponade, but they do occur and when present do not always rule out this diagnosis.

When a patient presents in the terminal stage of pericardial tamponade with an absent blood pressure, increased venous pressure and cyanosis, the diagnosis may be very difficult to establish. If other causes of this clinical picture cannot be documented, pericardial tamponade must be considered as a diagnostic possibility. In this situation pericardial aspiration is the only way to establish the diagnosis.

The most consistent electrocardiographic change associated with pericardial tamponade is a diminution in the voltage of the complexes. The degree of reduction, however, cannot be correlated with the amount of fluid contained within the pericardial sac.[11,31] As a general rule in pericardial effusions secondary to pericarditis, the characteristic ST and T wave changes of pericarditis accompany the low voltage complexes. Electrical alternans has been found to be frequently associated with pericardial effusions. McGregor and Baskind concluded that electrical alternans or less regular fluctuations of voltage which are not secondary to those produced normally by respiration are sufficiently common to be of real diagnostic value in differential diagnosis of pericardial effusions.[39]

The roentgenographic changes that commonly accompany pericardial effusions, without or with tamponade, are often very helpful in establishing the correct diagnosis. It must be emphasized, however, that the cardiac silhouette may not be significantly altered until 250 cc. or more of pericardial fluid has accumulated.[11,31] As mentioned previously, if this fluid accumulates rapidly as little as 150-250 cc. may cause tamponade; thus this clinical entity may be present in spite of a normal-appearing cardiac silhouette.[31] Also, cardiac fluoroscopy does not always reveal diminished cardiac pulsations, although this is the exception, not the rule.[11,25] If while being fluoroscoped, patients with pericardial effusion are changed from a vertical to a horizontal position, a change in the contour of the cardiac silhouette is sometimes noted but this is not a constant or specific sign of pericardial fluid. Some authors have found that the flabby heart of myocardial dilation can also produce the same visual effect.[11]

When present, the most helpful x-ray findings that aid in the differentiation of pericardial effusions from other causes of cardiac enlargement are: (1) the diminution or complete absence of cardiac pulsations when visualized by fluoroscopy, and (2) the demonstration by serial x-rays of a rapid change in the size of the cardiac silhouette. These x-ray changes usually are associated with little or no evidence of pulmonary congestion. Angiocardiography is a valuable means of differentiating pericardial effusions from other causes of cardiac enlargement;[40] however, in acute pericardial tamponade this procedure has only limited value.

After the diagnosis has been established, pericardial paracentesis will usually be followed by dramatic and immediate improvement in the patient's condition. Many times, however, a definite diagnosis cannot be established, especially if the patient presents

in the terminal stage of pericardial tamponade. In this event pericardial aspiration should be attempted as a diagnostic as well as a possible therapeutic measure, since failure to do this relatively innocuous procedure may result in death when an underlying benign disorder is present.

It has been reported by some authors that increasing blood volume is beneficial in acute tamponade;[41] however, others have found this to be of very limited or no value.[42] Obviously this consideration is important only when pericardial aspiration is not effective. This controversy has been somewhat reconciled by the experimental work of Isaacs, Berglund, and Sarnoff, who concluded that only a cautious trial in any given case could answer this question.[43] If the venous pressure is markedly elevated without a significant rise in arterial pressure, it would be unwise to continue this procedure; however, if the reverse were true, this may be of practical therapeutic value.

Epinephrine and aramine have both been suggested as useful adjuncts in the management of pericardial tamponade.[43] This view is based on the fact that one of the pharmacologic actions of these drugs is to increase the stroke work of the heart per unit of effective filling pressure, thus bringing about a more effective systolic ejection. Since the effective filling pressure is markedly diminished in this syndrome, the use of these drugs in selected patients appears to offer a rational temporary therapeutic measure in pericardial tamponade.

In the great majority of patients with acute pericardial tamponade, needle aspiration is effective, at least temporarily, in correcting the altered hemodynamics. Occasionally direct surgical approach has to be instituted.[25] This can be done usually with very little difficulty and if necessary under local anesthesia.

Summary and Conclusions

1. Two cases of acute non-specific pericarditis are presented in whom acute pericardial tamponade developed during the course of their illness.

2. Pericardial tamponade is an infrequent complication of this disorder, but it does occur and must be anticipated when managing a patient with acute non-specific pericarditis.

3. The important clinical, laboratory and therapeutic features of pericardial tamponade are reviewed.

4. The importance of recognizing this medical emergency is emphasized, since failure to do so or delay in initiating treatment may lead to death when an underlying treatable disease is present.

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Enteric Disease in Virginia, 1952-1960 Epidemiology and Control

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Except for typhoid fever, the enteric diseases are increasing in Virginia. With good control measures, however, they should virtually disappear.

DISEASES OF THE BOWEL came to Virginia with the first settlers and mention of the "bloodie flux" (dysentery) and the "burning fever" (probably typhoid fever) is made in the earliest Jamestown writings. Although clinical differentiation of these diseases was possible before the bacteriological era, laboratory diagnosis could not be made until this century and, in fact, separate reporting of the diarrheal diseases was not instituted until 1952 in the Annual Reports of the Virginia State Department of Health. In that year the group entitled "Dysentery and Diarrhea" was reclassified into Amebiasis, Shigellosis, and Salmonellosis. Typhoid fever had, of course, been reported as a specific infection for sometime before this. The havoc played by the enteric diseases during the Civil War is a matter of record and a considerable amount of morbidity and mortality from these infections persisted until comparatively recently. It is likely that diarrhea played a large part in the formation of the first public health law enacted on the North American continent at Jamestown in 1610, which stated, ". . . .: nor shall any one aforesaid, within lesse than a quarter of one mile from the Pallizadoes, dare to doe the necesseties of nature, since by these vnmanly, slothful, and loathsome immodesties, the whole Fort may bee choaked, and poisoned with ill aires, and so corrupt (as in all reason cannot but much infect the same) and this shall they take notice of, and

TABLE 1

NUMBERS AND RATES OF CERTAIN ENTERIC DISEASES BY YEAR
Virginia—1952-1960

Year	52	53	54	55	56	57	58	59	60
Amebiasis									
Number	8	20	20	18	33	33	54	48	54
Rate	0.2	0.6	0.6	0.5	0.9	0.9	1.4	1.2	1.4
Salmonellosis									
Number	39	162	116	128	177	128	126	174	159
Rate	1.1	4.6	3.2	3.5	4.8	3.4	3.3	4.4	4.0
Shigellosis									
Number	76	93	102	131	88	96*	130	135†	175
Rate	2.2	2.6	2.8	3.6	2.4	2.5	3.4	3.4	4.4
Typhoid Fever									
Number	77	54	70	48	59	42	43	27	24
Rate	2.2	1.5	1.9	1.3	1.6	1.1	1.1	0.7	0.6

*Does not include 84 in 1957 Spotsylvania County outbreak. (Spencer, F. J. Epidemic Shigellosis in a Rural Area Pub. Health Rep. 76:219, 1961.)
†Does not include 108 in 1959 Charles City County outbreak.

FIGURE 1

CERTAIN ENTERIC DISEASES BY YEAR, RATES PER 100,000

VIRGINIA 1952 - 1960

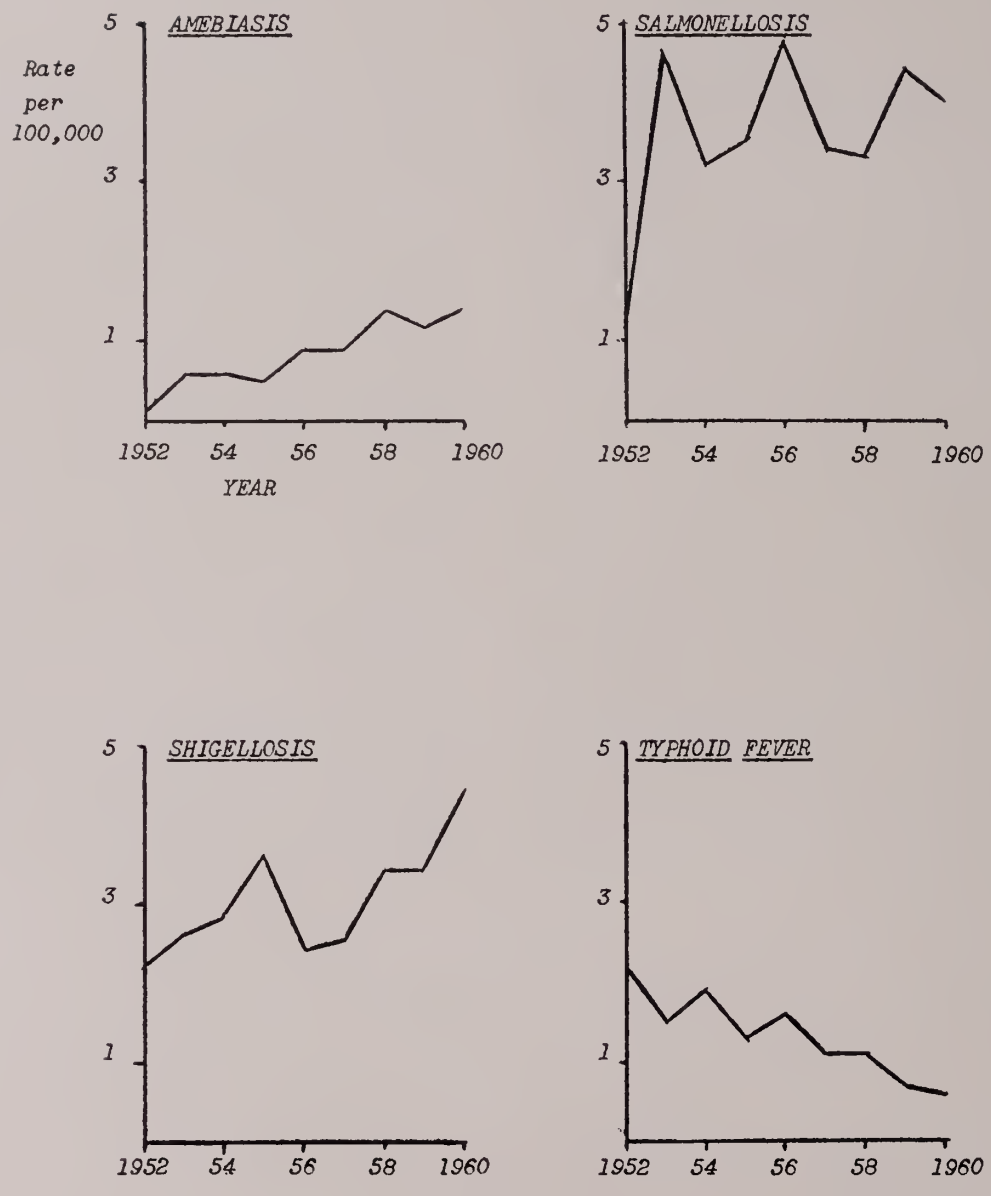


Fig. 1.

auoide, vpon paine of whipping and further punishment, as shall be thought meete, by the censure of a martiall Court."[1] This quotation exemplifies the miasmatic theory then in vogue.

This paper reviews four enteric diseases (amebiasis, salmonellosis, shigellosis, and typhoid fever) in Virginia by the classical triad of descriptive epidemiology, i.e. Time, Place, and Person. Data are for the years from 1952 through 1960 unless otherwise noted.

Time

Secular Trend. (Table 1 and Figure 1)

It is noticeable that typhoid fever is the only disease to show a decrease, the other three having increased, amebiasis more or less steadily during the eight years, and shigellosis sharply after a drop in the mid 1950's. Salmonellosis presents the interesting picture of a three year cycle, each peak and trough being approximately the same in value.

Seasonable Distribution. (Table 2 and Figure 2)

The findings belie the common name for these diseases of "summer diarrhea". Typhoid fever certainly occurs most often in summer with almost as many cases in the fall, but shigellosis climbs steadily during the year, reaching its highest point in October. Salmonellosis assumes a plateau in the summer with a drop in the fall and winter which is interrupted in December. Amebiasis remains constant throughout the year.

Place

Geographical Distribution. (Figures 3, 4, 5 and 6)

Amebiasis is mainly a disease of the central and southeastern parts of the State. A similiar distribution is seen in salmonellosis with an extension into the northern Valley of Virginia and the Tidewater area. Shigellosis runs in two wide bands across the central and southern areas and is common on the Eastern Shore. Typhoid fever is prevalent in the southwestern and Tidewater regions with scattered foci in the Valley and Southside Virginia.

Person

Age, Sex and Race Distribution. (Tables 3 and Figure 7)

The age distribution shows salmonellosis and shigellosis to be infections of infancy and early childhood, while the other two diseases are slightly commoner in the 5-9 age group with a proportionately larger number of cases in the ages over 20 years. Differences in sex distribution are not very evident in salmonellosis, but male predominance is noted in amebiasis and typhoid fever while females exceed males in shigellosis. Racially, using the State ratio of 78% white to 22% colored, there are proportionately more cases of shigellosis in the colored race than in the white. This is also true, although less noticeably so, in amebiasis and typhoid fever, but in salmonellosis the percentages almost equal those of the State.

Discussion

Data of the type shown here are only as good as the standard of reporting. Communicable disease reporting is notoriously poor and therefore the figures presented probably are low estimates. Nevertheless, they are the best available and consequently must be used for inferential analysis.

The secular trend may well be the result of better reporting by practitioners of the less sensational diseases, i.e. amebiasis, sal-

TABLE 2

NUMBERS OF CERTAIN ENTERIC DISEASES BY MONTHS

Virginia—1952-1960

	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Amebiasis	288	12	24	26	23	29	35	16	24	18	31	26	24
Salmonellosis	1,209	53	75	85	80	114	94	118	124	121	116	106	123
Shigellosis	1,218	55	32	34*	29	46	69†	85	95	107	221	142	111
Typhoid Fever	444	23	27	24	24	29	40	51	70	43	59	29	25

*Does not include 108 in 1959 Charles City County outbreak.

†Does not include 84 in 1957 Spotsylvania County outbreak. (Spencer, F. J. Epidemic Shigellosis in a Rural Area Pub. Health Rep. 76:219, 1961.)

monellosis, and shigellosis, probably because of an increased use of the laboratory in diagnosis. Typhoid fever, on the other hand, is, and always has been, reported fairly completely as it is the "terror disease" of the coupled with socio-economic factors, may account for the high incidence of typhoid fever in the southwest when compared with the low figures for the other diseases there, although the age distribution of a shifting

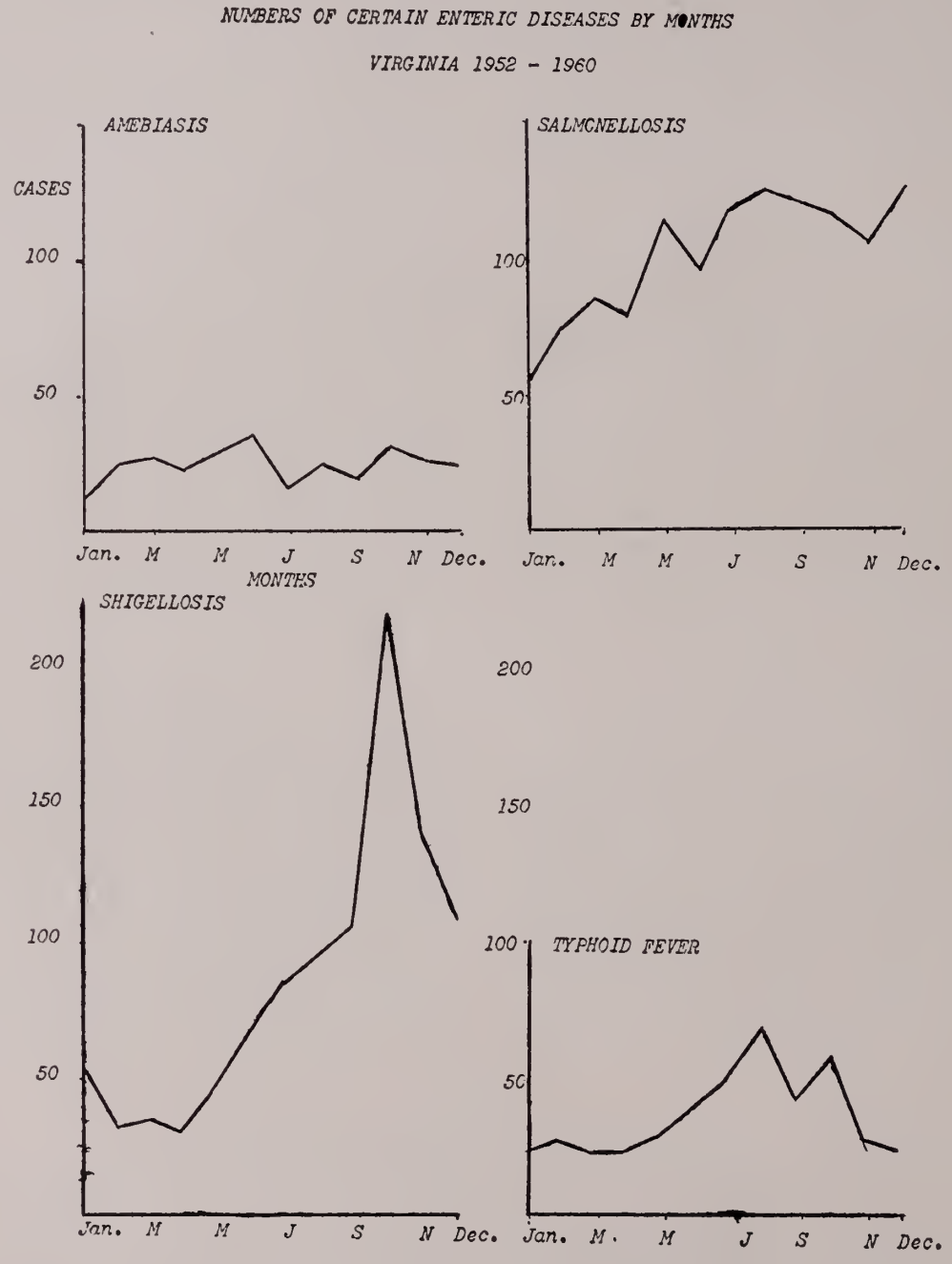


Fig. 2.

bowel, still being associated by the laity with the devastating epidemics of former times. This lay reaction may color the physicians' attitude towards reporting. This truism, and migrant population may play its part.

There may be some connection between the seasonal occurrence of shigellosis and the return to school in the fall as it is a dis-

ease spread primarily by person to person contact. The increase in Salmonella infections in December may be a result of poultry consumption at Thanksgiving and Christmas, salmonellosis being a disease widely prevalent in fowl.

plained in Amherst and Dinwiddie Counties in which the Lynchburg Training School and Central State Hospital are located respectively, as diarrheal diseases are classically the infections of mental institutions. This does not apply, however, to the white adult

AMEBIASIS IN VIRGINIA 1952-1960

BY COUNTY CASE RATE PER 100,000 POPULATION

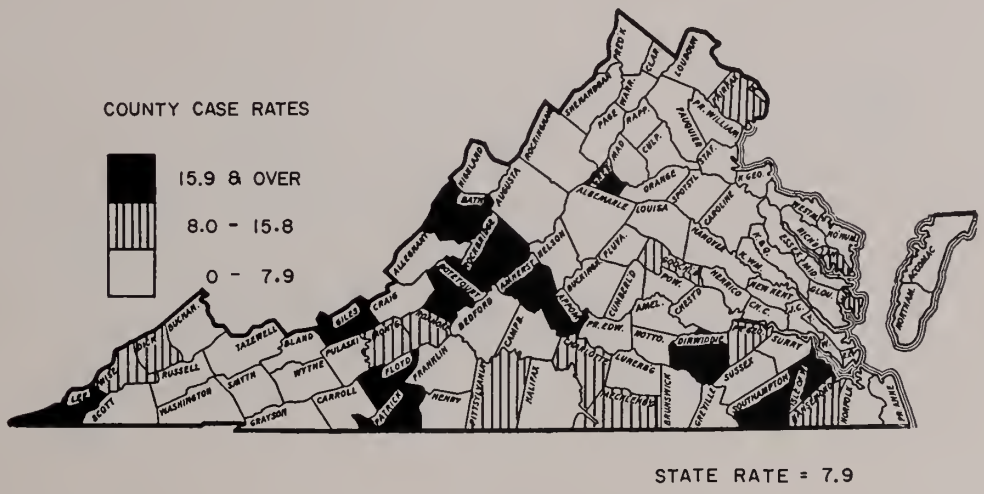


Fig. 3.

SALMONELLOSIS IN VIRGINIA 1952-1960

BY COUNTY CASE RATE PER 100,000 POPULATION

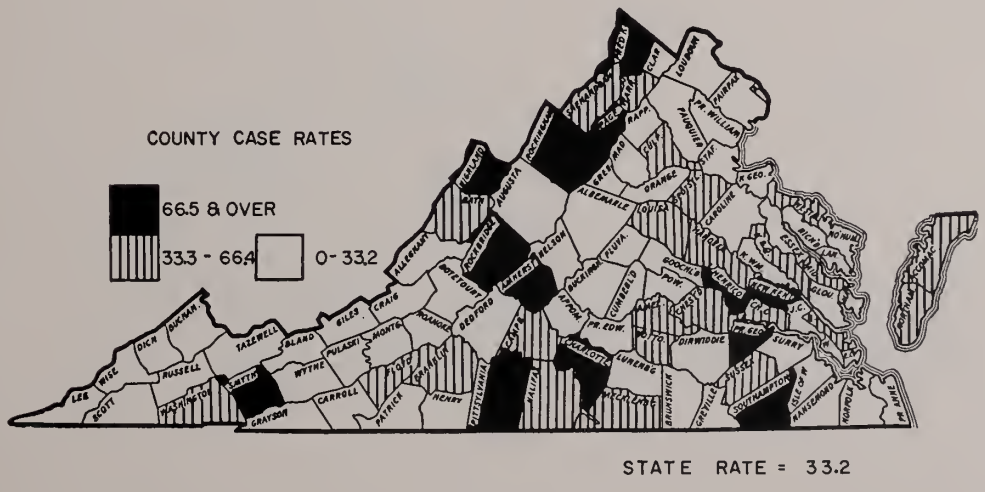


Fig. 4.

Geographically, it is noticeable that some counties have rates that are twice those of the State as a whole for two or more of the four diseases. (Table 4) This is easily ex-

mental institutions and therefore race and age would seem to be contributing causes. There is no such evident explanation for the fact that Rockbridge County has the un-

enviable position of reporting more than double the State rate in all four diseases. This may mean that reporting is better in that county, that public health investigation is more thorough, or, simply, that there is more

SHIGELLOSIS IN VIRGINIA 1952-1960

BY COUNTY CASE RATE PER 100,000 POPULATION

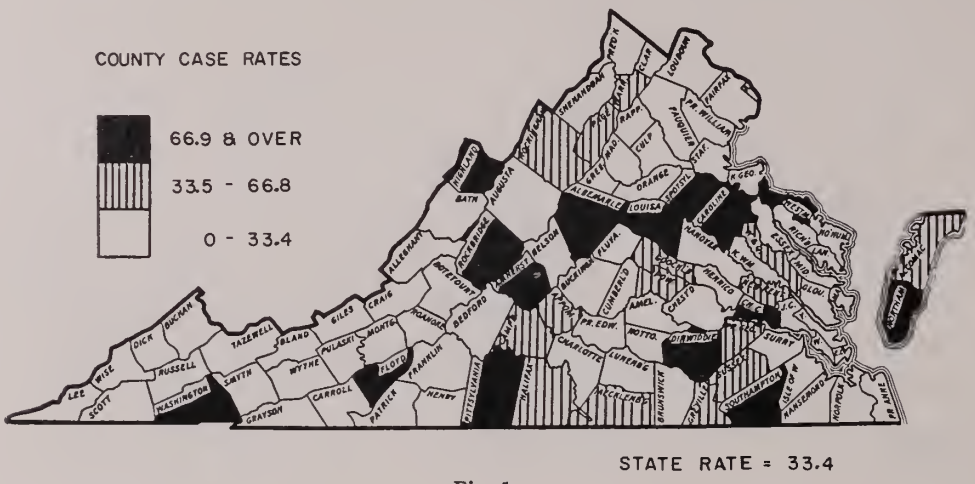


Fig. 5.

TYPHOID FEVER IN VIRGINIA 1950-1960

BY COUNTY CASE RATE PER 100,000 POPULATION

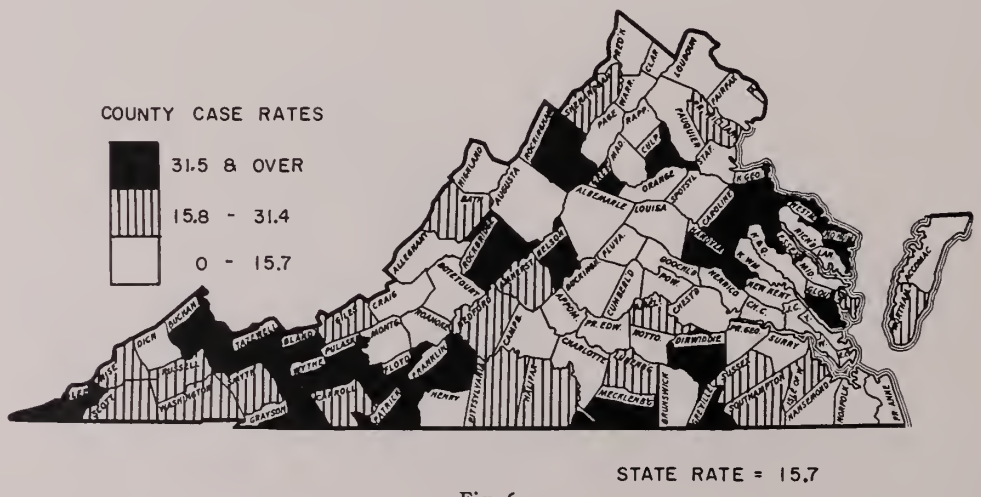


Fig. 6.

enteric disease there. Excluding Amherst and Dinwiddie Counties, four of the 10 remaining counties listed in Table 4 are in the Valley of Virginia, while two are located in each of the southeast, southwest, and central regions of the State. The northern Valley area is the center of the poultry industry which could explain the presence of salmonellosis, a common disease of fowl, but not the other diseases. Northern Virginia is conspicuously free of infection, probably because it differs so markedly from the rest of the State in the urban-rural distribution of its population, the enteric infections following their usual pattern of higher incidence in rural areas.

Other factors which influence the geo-

graphical distribution are almost certainly socio-economic. This term embraces everything from income through standards of education to the readiness and ability of the patient to seek total medical care, a component which in itself is not uniform in quantity and quality throughout the State. It is quite possible, in addition, that the geology of the State may play a part, as the predominating limestone in the mountains and their foothills allows underground infiltration of sewage more readily than the less porous soil of central and eastern Virginia. The racial factor noted in Table 3 does not seem to be of consequence in the spatial distribution, only three of the counties in Table 4 having more colored than white persons, although here again the socio-economic element must be considered. The excess of shigellosis in females may be caused by the more intimate contact of mother and child, especially in the pre-school years when the disease is so common. Amebiasis and typhoid fever may be commoner in the male because of the likelihood of encountering the causative organisms while working in an outdoor environment. Socio-economic factors almost certainly account for the racial distribution noted. Salmonellosis is in many ways an occupational disease and this may determine the higher incidence of this infection in the white group, the population distribution leading to their employment in the northern Valley of Virginia, already mentioned as the main poultry producing region in the State.

TABLE 3

NUMBERS OF CERTAIN ENTERIC DISEASES BY COLOR, SEX, AND AGE
Virginia—1952-1960

	Age Groups							
	0-4	5-9	10-14	15-19	20 and Over	Unknown	Total	% of Total
Amebiasis	23	32	24	11	196	2	288	100
White Male	10	13	12	4	77	2	118	41
White Female	6	10	7	4	62	.....	89	31
Colored Male	3	6	4	3	44	.....	60	21
Colored Female	4	3	1	.....	13	.....	21	7
Salmonellosis	519	136	59	33	445	17	1,209	100
White Male	205	72	26	14	165	7	489	40
White Female	199	48	22	13	201	8	491	41
Colored Male	57	7	6	4	36	1	111	9
Colored Female	58	9	5	2	43	1	118	10
Shigellosis	453	211	79	34	233	208	1,218	100
White Male	127	85	27	14	69	2	324	27
White Female	115	70	26	14	88	87	400	33
Colored Male	110	25	15	1	33	3	187	15
Colored Female	101	31	11	5	43	1	192	16
Unknown	.....	.....	.....	.....	.....	115	115	9
Typhoid Fever	57	87	68	43	189	.....	444	100
White Male	12	32	32	20	71	.....	167	38
White Female	18	25	20	9	79	.....	151	34
Colored Male	14	19	10	10	22	.....	75	17
Colored Female	13	11	6	4	17	.....	51	11

Control

In order to control the enteric diseases the first thing that must be accomplished is good reporting by practicing physicians. The case seen by a busy practitioner is an individual to him, but when seen in a State, national, or world context, this single case may be the connecting link which completes the chain of infection. Several examples of the widespread epidemic and pandemic potentialities of salmonellosis, for instance, have been described recently.[2,3,4] An integral part of good reporting is accurate diagnosis, and, in bowel diseases, this invariably includes the use of the laboratory. Once a

case is recognized, investigation by an epidemiological team from the Health Department should be sought. In this team, the doctor, nurse, sanitarian, veterinarian, biostatistician, and microbiologist should all have a part. This team will attempt to locate further cases and refer them to the practicing physician. In this way, not only will the reservoir of the particular organism be removed but also a common source of the infection may be uncovered thereby preventing further cases from occurring.

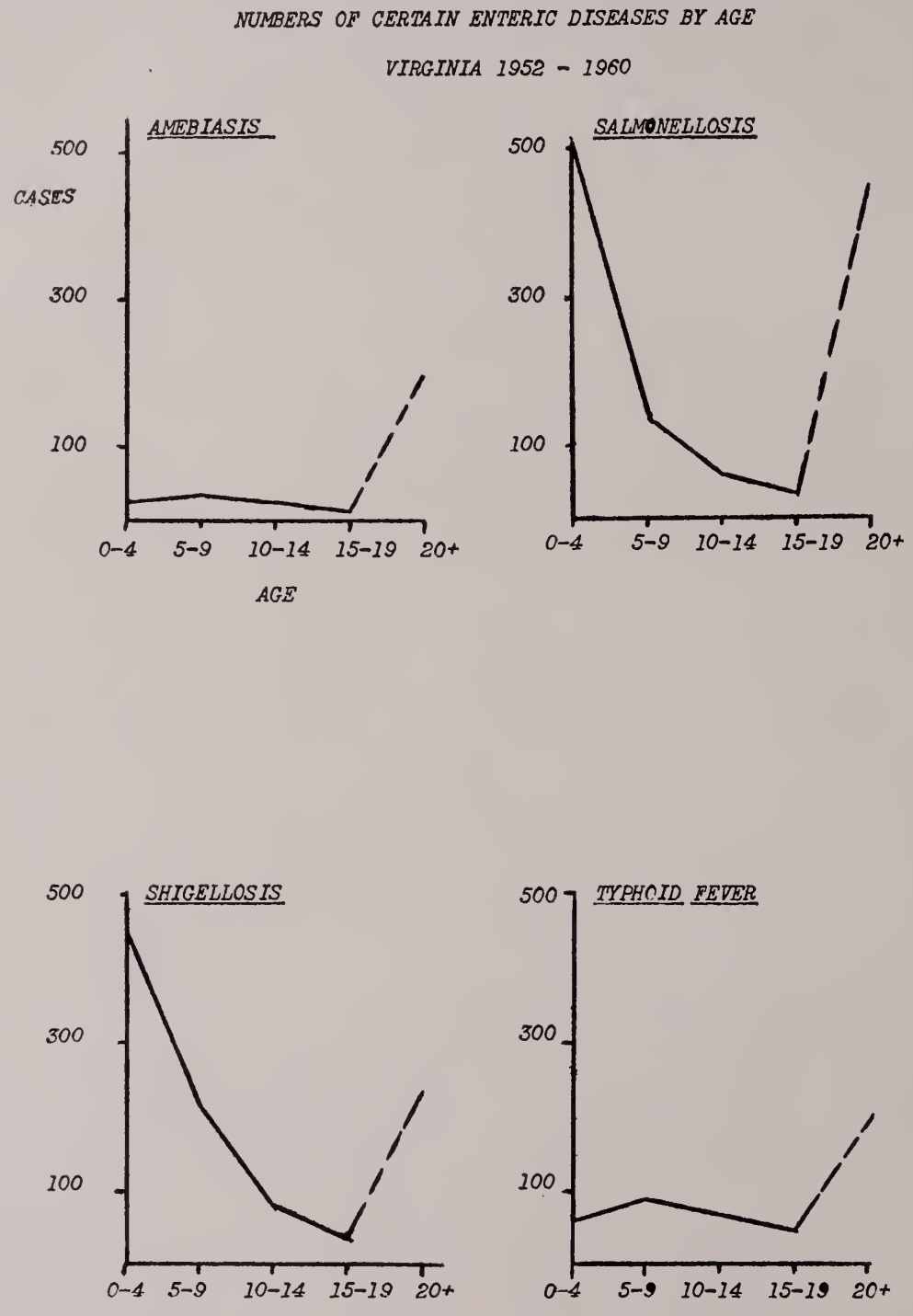


Fig. 7.

Prompt treatment of all individual cases with an appropriate agent is of course indicated in addition to these community measures. The status quo may then be maintained by improving personal hygiene and environmental sanitation, and the follow-up of diagnosed cases until they cease to be a menace to the health of others.

The Health Department should be used by the practitioner for all his patients. Public health, as its name implies, is for the public and not only for the indigent. The concerted effort of both the practicing physician and the Health Department is vital if a reversal of the present trend in enteric diseases in Virginia is to be achieved. There is every possibility that, with good control measures, these diseases can be eradicated within the State.

Summary

The occurrence in Virginia of amebiasis, salmonellosis, shigellosis and typhoid fever by time, place and person from 1952 through 1960 is presented and discussed. Suggestions for control by practicing physicians and health departments are made.

Acknowledgment. I should like to thank Mr. Deane Huxtable and Miss Beverly Priddy of the Bureau of Vital Statistics, Virginia State Department of Health, for their help with the statistical presentation.

TABLE 4

COUNTIES REPORTING 2 OR MORE ENTERIC DISEASES AT TWICE THE STATE RATE PER 100,000

County	Amebiasis	Salmonellosis	Shigellosis	Typhoid Fever
Rockbridge	X	X	X	X
Amherst	X	X	X	
Dinwiddie	X		X	X
Southampton	X	X	X	
Caroline			X	X
Greene	X			X
Highland		X	X	
Lee	X			X
Patrick	X			X
Pittsylvania		X	X	
Rockingham		X		X
Westmoreland			X	X

All figures for 1952-60 except for Typhoid Fever which is 1950-60.

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Hematuria Following Injuries to the Flank

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ALBERT J. PAQUIN, JR., M.D.
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Hematuria found after injury to the flank does not necessarily mean that the injury is responsible. Especially if the trauma has been minor, a thorough investigation should be made before reaching a conclusion.

WHEN HEMATURIA follows trauma to the flank the following three assumptions are usually made: (1) Some degree of injury to the ipsilateral kidney has occurred, (2) The urinary tract was normal prior to injury, and (3) The blood in the urine arises from the kidney on the side of the obvious injury. It is the purpose of this paper to indicate that these assumptions are many times erroneous and that the status of the urinary tract in such patients should be surveyed and the source of bleeding ascertained. A few simple diagnostic procedures can spare some patients considerable subsequent difficulty.

A review of the urological evaluation of five patients seen at the University of Virginia Hospital during the past year with complaints of hematuria following injury emphasizes the hazards of making the assumptions referred to above. This review also shows the need for establishing the status of the entire urinary tract and ascertaining the source of the hemorrhage.

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The present address of Dr. DeVault is 707 Camden Avenue, Salisbury, Maryland.

Case #1 (UVa. Hosp. # 322438) An 11-year-old white boy complained of nausea, vomiting, right flank pain and hematuria after falling from a sled and striking his right flank. He had been followed for several years by his local physician for intermittent right costovertebral angle pain. Examination disclosed bilateral costovertebral angle tenderness and an undescended testicle on the right. Urinalysis and urine



Fig. 1. Intravenous pyelogram—Massive hydronephrosis on right secondary to ureteropelvic junction obstruction, absence of renal shadow or excretion of dye on the left.

culture were negative The blood urea was 71 mgm.%. Intravenous pyelography revealed absence of a renal shadow or excretion of contrast material on the left. There was a massive hydronephrosis on the right secondary to a ureteropelvic junction obstruction.

(Fig. 1). On exploration a stricture of the ureteropelvic junction was found and a pyeloplasty performed. The peritoneum was opened and no kidney was apparent on the left side. His postoperative course was uneventful, the urea returned to normal, the pyeloplasty functioned satisfactorily and his urine is uninfected.

Case #2 (UVa. Hosp. # 468297) A 20-year-old white male while running slipped and fell between two automobiles striking his right side on a bumper. Following this he developed gross hematuria. His past history was significant in that at age 8 or 10 years he was thought to possibly have appendicitis but recovered after conservative treatment with ice bags. For several years he has noted pain in the right flank after strenuous running. Physical examination was unremarkable. Intravenous pyelograms revealed a Grade IV hydronephrosis on the right side secondary to a ureteropelvic junction obstruction. (Fig. 2) Further



Fig. 2. Intravenous pyelogram—Marked hydronephrosis on the right probably secondary to ureteropelvic junction obstruction.

diagnostic studies leading to surgical correction have been advised but the patient has not followed this recommendation.

Case #3 (UVa. Hosp. # 481533) A 32-year-old colored male was admitted on the medical service for evaluation of a congenital heart lesion. During the course of routine questioning it was learned that he had been kicked in the right flank some two months prior and subsequently developed severe right flank pain. Three weeks later fever, chills and slight burning on urination were treated with antibiotics by his local physician. The pain in the right side persisted and one week prior to admission the patient had gross hematuria with clots. His past urological history was unremarkable. On examination there was moderate to severe tenderness in the right flank with a fullness appreciated in the same area. Urinalysis revealed 3 to 4 white blood cells per high power field but no hematuria. Intravenous pyelography was normal on the left but no excretion of contrast agent was seen on the right. A right retrograde pyelogram



Fig. 3. Retrograde pyelogram—Marked distortion of collecting system on right by a cancer of the kidney.

revealed marked distortion of the kidney and collecting system consistent with advanced infection or tumor. (Fig. 3) At

exploration a large tumor mass replacing the kidney was found and microscopic examination showed a poorly differentiated anaplastic carcinoma, apparently arising from the renal pelvis. Within two weeks following nephrectomy he developed supraclavicular nodes and despite cobalt radiation had a rapidly progressive downhill course and expired. An autopsy was denied.

Case #4 (UVa. Hosp. # 372787) A 20-year-old white male was seen in the Emergency Room at midnight because of stab wound of the back. Examination revealed a 2 cm. laceration in the left costovertebral angle region 3 cm. below the 12th rib and 2 cm. lateral to the spine. Abdominal examination, urinalysis and films of the chest and abdomen were all entirely normal. He was observed in the Emergency Room overnight and the following morning complained of



Fig. 4. Intravenous pyelogram—Normal upper urinary tracts.

right costovertebral angle tenderness and hematuria. Intravenous pyelograms were normal (Fig. 4) and cystoscopy revealed bloody urine from the *right* side. The additional history was then elicited that as he was stabbed in the left side he fell striking his right side against a table. The patient made an uneventful recovery on conservative management of his right renal contusion.

Case #5 (UVa. Hosp. # 228017) A 43-year-old white male farmer fell from his tractor striking his right side with subsequent persistent right flank and right upper quadrant pain. The following morning he noted the passage of small clots of blood in his urine. There was no further gross hematuria until the morning of admission when he had painless terminal hematuria. His past urological and general medical review were otherwise unremarkable. On examination there was moderate right flank and right costovertebral angle tenderness. Urinalysis showed hematuria and slight pyuria. Intravenous pyelograms were entirely normal



Fig. 5. Intravenous pyelogram—Filling defect in cystogram produced by a cancer of the bladder opposite the right ischial spine.

except for a filling defect in the bladder on the cystogram (Fig. 5) Cystoscopy disclosed a 3 to 4 cm. papillary tumor above the right

ureteral orifice. The lesion was resected transurethrally and microscopic examination was reported as "transitional cell carcinoma of the bladder, Grade I-II without invasion of the muscularis".

Summary

There were two patients with giant hydronephroses, two with cancer, and one with bleeding from the right kidney following a stab wound to the left flank. Four of the urinary tracts were not normal prior to injury and investigation disclosed the lesions permitting recommendations for corrective surgery. In one patient the urinary tract was normal prior to injury but the bleeding arose from the side opposite to the obvious injury.

One should be suspicious that a normal urinary tract was not present before injury if hematuria follows a minor blow to the flank. The patient should have prompt urological investigation utilizing at least intravenous pyelography and cystoscopy. The latter procedure should be done on an emergency basis if gross hematuria is present when the patient is examined.

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Physician Population

The physician population of the United States and its possessions increased by about 4,500 in 1961, according to the American Medical Association.

Medical licensure statistics for 1961, compiled by the AMA's Council on Medical Education and Hospitals, were published in the June 9 AMA Journal.

A total of 8,023 first licenses to practice medicine and surgery were issued in 1961. Since approximately 3,500 physicians died during the year, the physician population increased by about 4,500, compared with a net gain of about 4,330 in 1960.

Of 8,714 applicants for licensure by written examination, 7,650 passed while 1,064 (12.2 per cent) failed. However, the rate of failure in approved medical schools was 2.8 per cent. Twenty-six approved schools had no failures among their graduates.

The greatest number of graduates from any one school to be examined was 214 from the University of Tennessee College of Medicine.

Statistics also were reported on the Educational Council for Foreign Medical Graduates, founded in 1957 to certify that foreign-trained physicians entering the United States had an education equivalent to that of graduates of approved medical schools in this country.

The Council, which has held eight qualification examinations for foreign medical graduates, said the "net effect" of the ECFMG certification plan has been not to restrict but rather to increase both the number and the quality of foreign medical graduates coming to the United States for graduate training in hospitals.

In 1961, more than 3,600 foreign medical graduates were qualified directly from abroad by the ECFMG. The number of foreign medical graduates taking the ECFMG examination abroad is now greater than the number taking it in the United States.

Meprobamate for Relaxation of Muscular Spasm in Orthopedic Problems of the Back

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The author has used meprobamate in the treatment of low back pain from a variety of causes and reports good results.

SPASM OF SKELETAL MUSCLE is seen with increasing frequency by specialists dealing with orthopedic diseases and by general practitioners as well. Strains, with associated pain, spasticity and limitation of motion from hyperextension of the lower back, are a common occurrence in industry and the activities of everyday life. Traffic accidents account for many others. Up to 85 per cent of injuries to motorists involve the neck, back and lower extremities. Of these, about two-thirds are so-called sprains, and in many reported series one-third of this group are the typical "whiplash" injuries caused by automobile crashes from the rear. An underlying osteoarthritis of the cervical spine may increase the seriousness of such neck sprains and prolong the disability.

Relaxation of muscle spasm—the cause of much of the discomfort—enables the patient to tolerate better the rehabilitative measures required. Many individuals, however, never learn to relax voluntarily under normal conditions, and under the additional stress of pain and stiffness from damage to skeletal muscle, the problem of therapy is intensified. With introduction of the so-called "ataraxics" the search for therapeutic compounds turned toward development of agents with direct action on contracted muscle and central calming effect as well. Analgesics and other measures seem more effective in orthopedic disabilities when the emotional climate is favorable to treatment. The ideal agent would reduce muscle tonus and relieve anxiety and tension simultaneously. Many substances for which such properties were claimed have been subjected to trial, sometimes for prolonged periods, but the effects of most have been disappointing. Some of them are not well absorbed after oral administration and lack sufficient duration of effect. Others produce respiratory depression, or weakness and even paralysis of the muscles released from spasm.[1] Other undesirable side actions have developed, such as a tendency toward liver damage.[2]

Meprobamate*, which was introduced by Berger in 1954, appears best to fulfill requirements through its specific blocking effect on interneurons, which action relaxes muscle, without influencing the reflex arcs that contain no interneurons. The central calming activity is also important since it reduces emotional tension in patients irritable from pain. Smith[3] has suggested that meprobamate would be more accurately described as a "lissive"[4] agent than as an ataraxic (from "liss"—to release, relieve or free).

Numerous observers[1-3,5-7] in the last few years have reported observations of the relaxant action of meprobamate in musculoskeletal disabilities from various causes, including acute torticollis, muscle spasm of the low back, whiplash injuries and various

From the National Orthopedic and Rehabilitation Hospital and Anderson Clinic, Arlington.

*Meprobamate is available as Equanil® from Wyeth Laboratories.

rheumatic disorders. Physicians in the Anderson Clinic have used the compound since it was first made available, principally for patients suffering from acute cervical or low back strain, and especially in cases associated with severe anxiety and emotional stress.

Clinical Series

A continuous study of the therapeutic effects of meprobamate in musculoskeletal disorders of the back was conducted at the National Orthopedic and Rehabilitation Hospital from May 1, 1959, through April 30, 1960. The series comprised 134 patients of various ages, and about evenly divided between the sexes, who were treated in 141 admissions totaling 1628 patient days. Six were admitted twice during the observation period and one, three times. Hospitalization ranged from three to thirty-six days, with an average of eleven days per admission. One hundred thirteen patients (84 per cent) were suffering from acute or subacute low back pain produced by muscle strain, herniated intervertebral disk and various other causes. (Table 1.) One patient was an alcoholic, three were grossly obese; and one, who had a colostomy, had carcinoma of the vertebrae metastatic from the colon. Laminectomy was performed for three patients who had herniated intervertebral disk. One patient had a spinal fusion.

TABLE 1

DIAGNOSES, 134 CASES OF MUSCULOSKELETAL DISABILITY TREATED WITH MEPROBAMATE

Diagnosis	*Patients no.*
Acute or subacute low back strain, with or without cervical involvement	105
Herniated intervertebral disk	5
Osteoarthritic degenerative disease of vertebrae	1
Strain secondary to Marie-Strümpell disease	1
Hip strain	1
Cervical strain	17
Acute cervical neuritis (brain contusion in 1 case)	4
	134

Dosage. The usual dose was 400 mg., administered four times daily. For about 50 per cent, medication with meprobamate was continued at home for an average of one month after discharge from the hospital. One patient remained under treatment for more than six months.

Results

The medication produced excellent muscle relaxation and relief of anxiety in 97 per cent of this series. The patients were easier to manage and tolerated traction and prolonged bed rest more willingly than previously had been the case when certain other relaxants were used.

Four patients (3 per cent) stated they felt no effect, desirable or otherwise, from the medication.

The one patient for whom meprobamate was prescribed for upward of six months also received other relaxant compounds at various times. None produced as satisfactory relaxation as did meprobamate. Withdrawal presented no difficulties.

Side effects. In general, the compound was well tolerated. Nausea, with or without vomiting, headache or dizziness, occurred in 20 per cent of the series; but since such reactions are commonly associated with the discomfort and tension that accompany acute strain of the neck and back, it is impossible to say how much could be attributed to the medication. Rash developed in four patients (3 per cent). Two patients (1 per cent) became drowsy. This was eliminated by reduction of the dose. Two patients had severe depression which required discontinuation of the drug.

Summary

One hundred thirty-four patients suffering from acute or subacute low back pain from a variety of causes were treated with meprobamate, usually in a daily dose of 1.2 Gm., throughout an average hospital stay of eleven days. About 50 per cent remained under medication for an average of one month after discharge to their homes. Excellent relaxation of muscle spasm, with more satisfactory tolerance of necessary procedures and restrictions, was obtained in 97 per cent. Withdrawal presented no dif-

ficulties. Nausea and other adverse reactions commonly seen during treatment of such disabilities of the back occurred in 20 per cent, and it is not known how much was attributable to medication. Rash developed in 3 per cent and drowsiness in 1 per cent.

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Heart Rate During Sleep

An FM radio system has enabled researchers to study heart rate patterns of patients during a night of undisturbed, uninterrupted sleep, it was reported in the June 16th Journal of the American Medical Association.

The success of the study indicates that the technique, known as radiotelemetry, will make it possible to gather information on bodily functions which were previously difficult to observe, Drs. Gordon H. Ira, Jr. and Morton D. Bogdonoff, Durham, N.C., said. "Though the situation of uninterrupted sleep does not present many technical difficulties, the fact that the observations were made without in any way disturbing the subject suggests that the method will have wide application."

The study revealed that the heart rate of a sleeper decreases gradually during the course of the night and eventually reaches a low point after which it may increase gradually. However, the heart rate of persons with hyperthyroidism did not decline during sleep. Pulse rates in these persons ranged from 108 to 118 beats per minute, which were not appreciably lower than their pulse rates while awake.

The study also revealed that there were some periods of increased heart rate during the night which were associated with body movements. "Simultaneously recorded electroencephalograms [records of brain activity] demonstrated that the depth of sleep lightened at the time that body movement and heart rate increases occurred." "The plane of sleep, therefore, is fairly consistently reflected by the contour of the heart-rate pattern: when there is variability in heart rate, the plane of sleep is light; when there is constancy in heart rate level, the plane of sleep is deep."

A transmitter, the size of a package of cigarettes, is used in the new technique. The patient's heart beat is picked up by leads attached to his chest which are connected to the transmitter worn in a wide belt. The transmitter, operating on a frequency allocated by the Federal Communications Commission, broadcasts an FM signal which is received on a standard FM radio. From the receiver, the signal is fed into a tape recorder and then to other machines for analyzing the data.

The authors are affiliated with Duke University Medical Center.

Correspondence . . . .

In Defense of Dr. Hunter.

To the Editor:

I do think some of your correspondents have been unfair to Dean Hunter in their criticisms of his conduct in supporting the King-Anderson bill. I would like to come to his defense on several points.

In the first place, Dean Hunter made it quite clear to all with whom he talked that he was acting in this matter entirely as an individual. No doubt many people will think, nevertheless, but will think erroneously, that in his actions he represented the University or Medical School. This is clearly not so.

From my personal experience as a member of this faculty for the past five years, I can testify that there has been absolutely no attempt to indoctrinate the medical students in any particular point of view with regard to economic aspects of medicine. If anything, the subject is probably discussed too little with them, and perhaps we should do more to keep them better informed of the important issues.

I am concerned about freedom to dissent without arousing hostility in the majority of the medical profession. Clearly there is something suspicious in the position of organized medicine, or at least many laymen think there is something suspicious, if no physicians dissent from the position of the A. M. A. and it is represented as being uniformly supported by all members of the medical profession. This would suggest some kind of internal regimentation which we do not have and do not want.

Finally, I must say that the allegations of Dr. Pinckney about the backgrounds of teachers in medical schools seem totally unwarranted and irrelevant. As a matter of fact, the average teacher in a medical school pursues this career at considerable financial loss to himself in view of what he could make in private practice. Most of us have to engage in considerable private practice, both because we like it and also to support our salaries as teachers. Moreover, we are not set aside from the rest of the medical profession. We are and want to be members of that profession as much as anyone who is fully engaged in private practice.

IAN STEVENSON, M.D.
Professor and Chairman

Department of Neurology and Psychiatry
University of Virginia
School of Medicine

To the Editor:

I note in the May issue of the Virginia Medical Monthly a letter from Drs. William R. Hill and A. L. Herring, Jr., expressing their amazement and shock that the Dean of the School of Medicine of the University of Virginia should dare to express an individual opinion in support of the King-Anderson Bill To *my* amazement and shock, they recommended disciplinary action for Dr. Hunter's deviant opinion.

We have, indeed, failed in our sacred duty to safeguard our most cherished democratic concepts if we attempt to prohibit or "discipline" colleagues whose opinions happen to differ from our own. Dr. W. L. Ball (in the same issue) expressed his "embarrassment" that a minority opinion should be expressed by a prominent Virginia physician. As a Virginian, I would like to express even greater shock and embarrassment that any citizen of Virginia, the birthplace of Jeffersonian democracy and the Bill of Rights, should attempt to deny another the right to his own opinions. If we were to carry Drs. Hill and Herring's thinking one step further, we would soon be recommending disciplinary action for any physician who does not vote the straight Democratic ticket, the Republican ticket, belong to a

given church, or whatever the majority might decree. If I recall correctly, a red-haired Virginia radical started considerable commotion in this part of the country around 1776 because of thinking just such as this. What has happened to our Jeffersonian heritage?

Just for the record, I, like a number of my colleagues, happen to oppose the King-Anderson Bill; I am also, with some pride, a member of the University of Virginia faculty. In spite of this situation, I have neither been disciplined, demoted or castigated because of my beliefs. In fact, we rather enjoy our disagreements and the lively debates that frequently ensue. For, "Here we are not afraid to follow truth wherever it may lead nor to tolerate any error so long as reason is left to combat it." Do these words still have meaning?

Finally, I am most curious about Dr. M. Morris Pinckney's interesting assertion that we *physicians who happen to teach* are the distorted victims of "inherited wealth" or the "endowment of a wealthy person"! Perhaps these are just some academic "fringe" benefits that I, in my muddle-headed, Ivory-tower, sort of way, have neglected to look into!

William M. Sheppe, Jr., M.D.

Department of Neurology and Psychiatry
University of Virginia Hospital

Editor's Note: With the publication of the above two letters, the Virginia Medical Monthly brings to a close any further mention of this unfortunate affair.

Children Resist Respiratory Bacteria

A significant number of children are able to resist some respiratory germs they are exposed to in their homes, according to a study reported in an American Medical Association journal.

The finding indicates that other factors besides exposure are involved in the acquisition of respiratory organisms, Henry Stimson Harvey, M.D., and Mrs. Marjorie Bodwell Dunlap, M.A., Acton, Mass., said in the June American Journal of Diseases of Children.

A total of 351 children from 94 healthy families living in rural communities was studied for periods of 1 to 2 years to determine the incidence of 3 bacteria—hemolytic streptococcus, hemophilus influenzae and pneumococcus.

Between birth and one or two years, children carried large amounts of the flu and pneumonia germs but very little streptococcus, the germ that can cause a sore throat and other illnesses. Children entering the two- to six-year-old period frequently carried all three organisms. The peak incidence of strep infections came in the early school period, while all three organisms gradually decreased after the age of 12.

Within this general pattern, there were wide individual differences, particularly in the occurrence of streptococcus. The strep germ was not found in all individuals in the susceptible age period, between babyhood and the 12th birthday.

"Thirty-six per cent of the children from 1 to 6, and 26 per cent of those from 6 to 12 did not acquire the hemolytic streptococcus even though it was present in their homes. Of those who did acquire it, 60 per cent in the susceptible age groups had it less frequently than would be anticipated from the exposure rates."

More than one-third of 910 strep infections were not shared by members of the same family at the same time.

The authors concluded that "other factors besides exposure are involved in the acquisition of respiratory pathogens, particularly the hemolytic streptococcus"

Public Health . . . .

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

Newer Techniques for Prevention and Diagnosis of Rheumatic Fever

Primary prevention of rheumatic fever in persons who have not previously had that disease is a subject of great concern to thoughtful physicians and citizens. It has been proven clearly that rheumatic fever is caused by hemolytic streptococcal infections in susceptible individuals. This ubiquitous organism varies in virulence but approximately three per cent of untreated infections are followed by acute rheumatic fever. Preschool children may be expected to have a minimum of one streptococcal infection every two years while each child starting school may have two streptococcal infections during subsequent ten years. To diagnose, treat and prevent the sequela of such infections might be estimated conservatively as preventing heart disease in forty of every thousand school children if adequate diagnosis and therapy is given. Unfortunately not all streptococcal infections are manifest clinically and at best there are limitations in the physicians ability to completely alter the natural course of this disease. Nevertheless the striking decrease in instance of rheumatic fever and heart disease during the last twenty years is striking proof of the effectiveness of current methods of diagnosis and therapy in improving this outlook.

How then may streptococcal infections be differentiated from the extremely common viral and other infections which plague our youthful population? The physician's high index of suspicion followed by a prompt throat culture is the most effective method. The manifestations of streptococcal illness vary greatly at different ages. Rantz and others have emphasized the picture of chronic coryza, low fever and suppurative complications in ears, glands and skin in those under four years of age. Their antistreptolysin titres are rarely significantly elevated and they run a prolonged course. The four to eight year old group has higher antistreptolysin titres with more fever but large numbers still have naso pharyngitis and pyodermas as presenting complaints. Fewer will suffer suppurative complications but the late sequelae of rheumatic fever and nephritis appear first in this age group. Those over eight years of age develop a more acute toxic illness with sore throat, headache, fever, enlarged cervical glands and occasionally scarlet fever rashes. Their higher antistreptolysin titres and classic picture make the diagnosis easier. White counts are also more likely to be elevated in the latter two groups.

The culture is the one specific diagnostic criteria and should be obtained and sent promptly to a laboratory equipped for blood agar techniques or special streptococcal study. Dr. Albert Coons of the Harvard University School of Medicine described a new test which takes only two to three hours compared with the several days required for standard cultures. In this "fluorescent antibody test", antibodies for a specific disease are stained with a fluorescent dye and dropped on a slide which has been smeared with material taken from the patient who is ill. If the smear contains the germ for which the antibody is specific, the antibody will immediately attach itself to this germ. When the liquid containing the antibody is washed off the slide, the antibody and the germ will remain where under ultraviolet illumination a greenish fluorescence may be seen almost like minute neon lights. If the offending organism is not present in the specimen the antibody will wash off along with the liquid that contained it. This technique

requires trained personnel and expensive equipment. The laboratories of the State Department of Health have been making this test since January, 1961, and the City of Richmond Laboratory under the direction of Mr. William A. Dorsey is interested in making available such techniques. A technician from his laboratory, financed by the Richmond Area Heart Association, attended a special course at the Communicable Disease Center of the United States Public Health Service in Atlanta, Georgia, during April, for a special course on fluorescent antibody techniques related to rheumatic fever. Even with the older methods reports are available in 24 to 48 hours and should be widely utilized by physicians who suspect this diagnosis in their patients.

It cannot be over emphasized that the beta hemolytic streptococci are never eradicated by sulfonamides nor by any short term therapy. Penicillin is by far the most effective drug. The recommendations of the American Heart Association should be followed closely in this regard and every patient having such a streptococcal infection treated intra-muscularly with either 1,200,000 units of Benzethine-Penicillin G as a first choice or by other forms of penicillin in adequate doses for a minimum of ten days. If penicillin sensitivity exists, a patient should be given erythromycin in therapeutic doses for ten days.

Obviously all patients with a clear streptococcal diagnosis should be so treated. Problems often arise in the therapy of close contacts. Usually such contacts are best cultured and observed, but anyone with a previous history of rheumatic fever would be treated immediately because their chance of a recurrence of the disease is at least fifty per cent.

The diagnosis of rheumatic fever still remains in the hands of the experienced clinician. The absence of a specific laboratory test for this disease continues. The "Jones Criteria" as set down by T. Duckett Jones and modified by the American Heart Association are our best clinical guides and should be followed explicitly. It is equally poor medicine to over as to under diagnose such a case and in doubtful cases a period of observation is necessary. The most helpful laboratory studies are those for streptococcal antibodies which should be elevated in over 90 per cent of cases in the first few weeks if acute rheumatic fever is present. The presence of a specific protein not normally found in healthy persons and measured as C-Reactive protein is also useful. It is elevated, however, also in many other diseases particularly with enlarged lymph nodes. The nonspecific sedimentation rate, elevated white count, anemia or changes in the electrocardiogram are helpful but far from specific. The necessity for one major manifestation, that is polyarthritis, carditis, chorea, erythema marginatum or nodules along with two or more minor manifestations such as fever, arthralgia, prolonged PR interval, evidence of streptococcal infection, nonspecific laboratory elevations or past history of rheumatic fever are required. Even in meeting these criteria a careful search should be made for the many other confusing diseases that may similate rheumatic fever closely, especially in the early stages.

Current studies, especially on the nature of the streptococcus, the related enzymes, and the complex host reaction to this organism are being conducted in research laboratories throughout this country. A further drop in the instance of rheumatic fever can be expected only as physicians keep informed of newer methods of diagnosing and treating this virulent organism so that its sequela can be prevented.

Cancer Trends . . . .

WILLIAM R. NELSON, M.D.

Experiences with Pelvic Exenteration for Advanced Cancer of the Cervix

Radical removal of the pelvic viscera for advanced cancer of the cervix has been carried out with increasing frequency since the first procedure in 1946 by Brunschwig.[2] The fact that these advanced carcinomas may remain localized to the pelvis is attested to by a 17 per cent five-year survival rate demonstrated by Brunschwig and Daniel[3] in a series of 242 pelvic exenterations carried out in otherwise hopelessly incurable patients. The total procedure includes removal of the uterus, tubes, ovaries, vagina, bladder, pelvic colon and surrounding soft tissues including the pelvic nodes, out to the walls of the pelvis. The anterior procedure, which is performed in selected cases, allows for preservation of the pelvic colon. Urinary diversion in the total procedures was first achieved by Brunschwig through anastomosis of the ureters to the bowel proximal to the sigmoid colostomy. Bricker[1] subsequently attached the ureters to an ileal conduit separated from the distal small bowel and exteriorized in the right lower quadrant of the abdominal wall. (Fig. 1) This method is thought by most surgeons to be superior to the original "wet colostomy" technique. In the anterior procedure urinary diversion may be performed through anastomosis of the ureters to the intact pelvic colon, although this procedure is at times complicated by serious electrolyte imbalances. It is the purpose of this report to present two typical patients who have undergone total pelvic exenterations for locally advanced carcinoma of the cervix at the Medical College of Virginia. The first patient underwent an anterior procedure and the second a total pelvic organ removal, both after previously unsuccessful irradiation therapy.

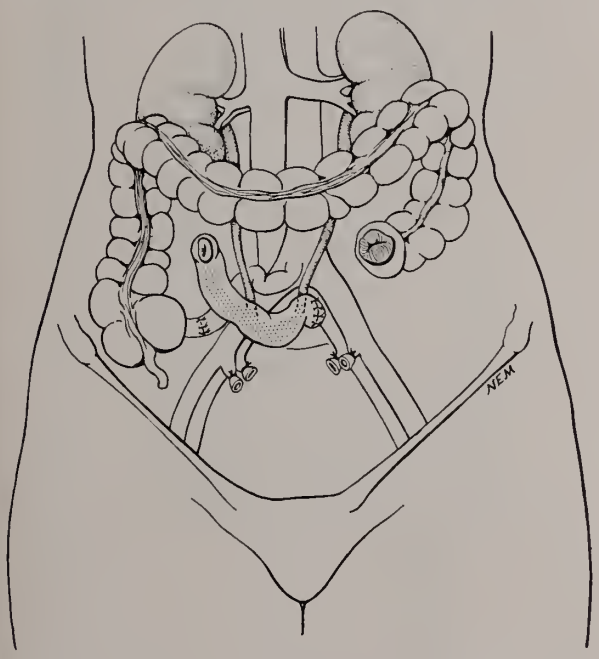


Fig. 1. Ileal conduit and descending colostomy after total pelvic exenteration.

Indications for these operations might be summarized in the following manner. Any good risk patient with advanced cervix cancer confined to the pelvis, not curable by irradiation or radical Wertheim hysterectomy, can be considered a candidate for radical pelvic eviscerectomy. Marked obesity, advanced age and severe bilateral hydronephrosis may preclude this extensive surgery. Persistent sciatic distribution of pain in the face of extensive local disease often points to incurability but local fixation to the pelvic walls alone does not mean inoperability, since fibrosis about the periphery of the tumor may result in this clinical picture. Psychoneurosis, mental deficiency and unwillingness on the part of the patient to accept colostomy and/or ileal conduit definitely rule out these radical procedures. The indications for exenteration may not be met

Nelson, William R., M.D., *Assistant Professor of Surgery, Medical College of Virginia.*

in certain instances until, at the time of planned radical Wertheim hysterectomy, tumor extension in close proximity to bladder and/or rectum is felt to be incurable without sacrifice of one or both of these organs. Here the decision often rests upon the experience of the individual operator.

Case Reports

Case 1. W.A.M., 44-year-old colored female. This patient was found to have a League of Nations Stage II carcinoma of the cervix in June 1959 and was treated by radium and x-ray at the St. Philip hospital of the Medical College of Virginia. She received 7200 mg. hours of colpostat and intrauterine radium and 9000r (in air) of external irradiation administered by the 250kv apparatus. Because of failure of tumor control she was readmitted in May of 1960 when examination revealed involvement of the cervix and paracervical regions by a locally extensive neoplasm. An I.V. pyelogram demonstrated normal upper urinary tracts and the bladder was without evidence of involvement on cystoscopy. Biopsy of the cervix showed residual squamous cell carcinoma and the tumor was found to extend out to the pelvic walls bilaterally with considerable fixation. This patient, a controlled diabetic of many years duration, was found to be in good general condition and was prepared for an exenterative procedure.

On 5-18-60 this patient underwent total pelvic exenteration plus construction of an ileal conduit. Extensive irradiation reaction was noted throughout the pelvic tissues but it was possible to clear the whole mass from the pelvic walls with minimal difficulty.

Pathologic studies revealed squamous cell epithelioma, recurrent, of the cervix with involvement of the upper vagina and metastases to one pararectal lymph node.

The post-operative course was completely uneventful and the patient was rehabilitated rapidly. She has been followed closely in the Tumor Clinic since her surgery and was last seen on May the 8th of 1962 when no evidence of recurrent or metastatic cancer could be found. This patient's serum electrolytes have been within normal limits except for a CO_2 ranging between 18 and 20. She has had some irregular elevations of blood sugar but the diabetic problem has been well controlled with insulin. One episode of chills and fever, possibly on the basis



Fig. 2. Patient W.A.M. 2 years following total pelvic exenteration.

of pyelonephritis, occurred in August of 1961. Since that time she has shown no evidence of urinary tract disease and wears a rubber (Pierce) bag over the conduit opening. She carried out full time housekeeping duties and is very active. (Fig. 2)

Case 2. F.F., 61 year old white female. In February of 1960 this patient developed an ulceration of the vagina which on several biopsy examinations was negative for tumor. Because of continued vaginal bleeding she was later given radium therapy at an outside hospital to an unknown total dose. The ulcerated lesion persisted as did the vaginal bleeding and the patient was finally diagnosed as having a squamous cell epithelioma of the cervix. Radon seeds were inserted into the tumor at an outside hospital on October the 30th, 1960. Some bright bleeding occurred during the ensuing weeks and symptoms of pressure in the bladder area were noted.

This patient was referred to the Medical College of Virginia Hospital where she was admitted in December of 1960. Examination revealed a 6 cm. ulcerated lesion involving the anterior wall of the midvagina extending into the lower third of this organ. The lesion seemed to be separated from the cervix which had been partially obliterated by the irradiation. In the para-cervical region this mass extended out to the left lateral pelvic wall while the posterior vaginal and right paracervical areas were clear. Cystoscopy showed evidence of involvement of the bladder in the region of the right trigone while an intravenous pyelogram showed no abnormalities. This patient was prepared for radical exenterative surgery which was planned as an anterior or rectal-sparing procedure.

On 12-20-60 it was possible to perform an anterior pelvic exenteration with ileal conduit construction. During the pelvic node dissection a 3 cm. node was removed from the right hypogastric vein just distal to the bifurcation of the common iliac. The main tumor mass was easily dissected away from the pelvic walls.

Pathologic studies revealed squamous cell epithelioma, moderately well differentiated, of the cervix with extension to the uterus, bladder, vagina and with metastases to several parametrial nodes and one hypogastric node.



Fig. 3. Patient F.F. 18 months following anterior pelvic exenteration.

The post-operative course was complicated by severe furunculosis but the patient otherwise had an uneventful hospital stay. Bilateral ankle edema became manifest in

August of 1961 and has persisted to the present time. She showed no evidence of recurrence or metastasis when examined in February of 1962 and was having no difficulty managing the ileal conduit bag. This patient works full time as an executive secretary and enjoys mountain climbing and other walking sports during vacations. (Fig. 3)

Discussion

It is apparent from these case histories that pelvic exenteration can give good results and can allow for almost total rehabilitation. Pre-operative and post-operative care must be extremely vigorous in order to keep the operative mortality at a respectable rate. Since radium and x-ray is the standard treatment for cancer of the cervix in this country, it should behoove those physicians using this modality to carefully observe their patients in the post-irradiation stages to determine whether or not reactivation or poor response is seen. Re-irradiation is often fraught with complications if the first course has been completely adequate. It is among such a group of patients with active cervix cancer after irradiation that candidates will be found for the exenterative procedures mentioned here. When cervix cancer, recurrent after irradiation, is allowed to progress until its late stages, pelvic eviscerectomy will often be impossible.

Conclusion

Pelvic exenteration is an operative procedure of great magnitude which should be applied in very special cases of locally advanced cervix cancer which has not responded to proper irradiation therapy or has recurred after temporary control with irradiation. Two case reports are presented of typical exenteration patients who have achieved good immediate results. Permanent cure of patients doomed to a painful death can be achieved by such surgical procedures if proper selection is utilized.

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Drug Industry Contributions

All American industry has contributed, but I must give a special vote of thanks to the pharmaceutical industry, which has contributed in excess of $1 million in cash and drugs to our effort. I have no idea how many other foundations like our own are able to carry on their work because of this great industry, but because this industry has a heart, this award belongs as much to them as it does to me.—William B. Walsh, M.D., founder of Project HOPE, on receiving 4th Annual Health U.S.A. Award.

Current Currents

KING-ANDERSON: As this issue of Current Currents goes to press, the tension surrounding the King-Anderson controversy continues to build. A vote in the House Ways and Means Committee could come any day, and will probably be history by the time this is read. One thing is certain, however—no matter what the verdict, the battle is far from over.

Latest developments indicate that the Administration is ready to make certain compromises. HEW Secretary Ribicoff is reported to have told the Ways and Means Committee that he hopes something can be worked out. Rep. Thomas B. Curtis (R., Mo.) said, however, that he did not think any compromise bill would emerge.

Dr. Leonard W. Larson, AMA President, charged that President Kennedy had given "incorrect information" about AMA's position regarding social security. Dr. Larson denied that there was any truth in the President's statement that "the AMA was one of the chief opponents of the social security system in the '30's'." In a letter written to the President, Dr. Larson pointed out that AMA took a position only on that section of the original social security bill concerned with the extension of public health services, and that it testified in support of that section.

Reports from many Congressmen give some reason to believe that medicine's efforts to inform the public are really beginning to bear fruit. Rep. Charles A. Halleck (R., Ind.) said that his mail "is running 30 to 1 against the President's plan." Earlier, Sen. Barry Goldwater stated that since the President's New York appearance, Congressional mail is substantially against H. R. 4222.

CHICAGO BOOMERANG: Mayor Richard J. Daley of Chicago has stirred up a hornet's nest by initiating a drive to obtain 2½ million signatures in support of H. R. 4222. As a result of his campaign, which apparently has brought City employees into the picture, the Mayor has received much adverse publicity. The Chicago Daily News reported that a man who identified himself as a democratic precinct captain tried to pressure a Daily News reporter and his wife into signing a petition supporting the bill. The Chicago American reported that a clerk in the information booth at City Hall was passing out petitions favoring the enactment of King-Anderson. The Chicago Tribune reported complaints that precinct workers were accepting the names of children on their petitions. The Chicago Sun-Times editorialized that the Mayor's petition campaign was an effort "to panic Congress into passing a hastily conceived, unsound piece of medical care for the aged legislation."

BEFORE LEAVING ON THAT VACATION—INSTALL SEAT BELTS!

ILLINOIS COUNTER: In answer to Mayor Daley, the Illinois State Medical Society began offering petitions for circulation to those who oppose H. R. 4222. The Society was deluged with requests for petitions. During one four hour period, the Society, which had set up special phones, received over 1,100 calls.

SASKATCHEWAN SITUATION: The Canadian Province of Saskatchewan is attempting to push ahead with its compulsory medical care program. The plan is due to go into operation July 1, amid growing signs that the physicians and surgeons of the Province are determined not to cooperate. Saskatchewan pioneered a state-run hospital plan more than 10 years ago, and its Provincial government is attempting to start the first state-run medical care plan in Canada. The Saskatchewan College of Physicians had announced that its members will cease providing medical services after July 1 "except in emergencies." The Canadian Medical Association has announced support of the Saskatchewan College of Physicians and Surgeons. Some Saskatchewan physicians are making plans to leave the Province if the new medical care program is put into operation. Fifteen of these physicians are reported to have contacted the AMA Physicians Placement Service in the past month.

DOCTOR JUDD TO RUN: Many physicians will be pleased to learn that Rep. Walter H. Judd (R., Minn.) has changed his mind and will seek reelection to the Congress after all. The physician-legislator stated that he "had not recognized or properly evaluated certain factors which have now compelled me to change my mind." Dr. Judd has quite a battle ahead, however, since the enlarged 5th Minnesota District now includes all of Minneapolis. The experts say it will now be more difficult for a Republican to win.

ANNUAL MEETING: The 1962 Annual Meeting—designated as Second Interstate Scientific Assembly—will be a joint affair with the Medical Society of the District of Columbia. With Washington's Sheraton Park Hotel as headquarters, the meeting (October 14-17) will probably attract a total physician registration of between 2,500-3,000. The full three-day scientific program will be one of the most complete ever presented during an Annual Meeting.

DID YOU KNOW? A survey recently estimated that 15,000 golfers, caddies and workmen were injured in golfing accidents last year. Half of the injuries resulted from being hit with a golf ball.

Each year in the United States, 300,000 pedestrians sustain varying degrees of injury when struck by motor vehicles.

Pharmacists in the United States last year filled 650,697,000 prescriptions.

Mental Health . . . .

HOWARD H. ASHBURY, M.D.

Alcoholism: Brief Notes

In a popular book published recently, fun is poked at mission directors and social workers interested in the field of alcoholism. They are pictured as earnest and sincere people who are not aware of the elementary fact that they are not interested in helping alcoholics but only in reforming them. Alcoholics are described as people who do not want to reform but are cynical, depraved, dishonest and obscene men who want to be left alone to perish. This is a dismal picture and we may well inquire in good conscience as to what can be offered to these unfortunates. The care and responsibilities of those interested in this problem can be considered to have passed through four stages. These eras have run concordantly but have reached their peaks at different periods.

The first approach is the moral or religious one. Here alcoholism is considered a sin. Alcohol was distilled in Arabia in the eighth century but it remained a chemical oddity until the end of the eighteenth century when the production of gin was promoted along commercial lines in England. With the availability of inexpensive alcohol the population responded as a primitive race. Smollet, the poet, describes saloons with the following sign out in front: Drunk, one penny; Dead drunk two pennies; Straw free. For a penny one could get drunk, for two one could drink to insensibility and there was free straw on which to sleep. Hogarth, the artist, by his drawings depicted the horrid state of affairs. He showed distilleries and breweries running full blast while flour mills closed, children drowned in sewers, women and men consorted publicly and debauchery produced a mixture of terror and disgust. This aroused the church and many temperance societies were formed. In our own country the first such society was organized in 1808 and they soon became widespread. They did as much as they could but they abandoned temperance for teetotalism and failed. The decline of the movement began about 1850, and even though there are still temperance societies in the United States they no longer occupy the position of prominence which they once enjoyed.

The second approach may be termed the legal or political one. Here drunkenness is considered not a sin but a crime. The first temperance speech made by a politician was made by Lord Lonsdale in the House of Lords in London in the year 1743. He said, "In every part of this great metropolis whoever shall pass along the streets will find wretchedness stretched upon the pavement, insensible and motionless, and only removed by the charity of the passengers from the danger of being crushed by carriages or trampled by horses or strangled with filth in the common sewer. These liquors not only saturate the mind but poison the body; they not only fill our streets with madness and our prisons with criminals, but our hospitals with cripples. Those women who riot in this poisonous debauchery are quickly disabled from bearing children or produce children diseased from their birth." Here we see much of the belief and misconceptions which so befuddle thinking in the field of alcoholism.

The first liquor law in the United States was enacted in New York City in 1845 forbidding the sale of alcohol within the city limits. The law was repealed in 1846 but

HOWARD H. ASHBURY, M.D., *Superintendent, Eastern State Hospital, Williamsburg, Va.*

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Presented to the Richmond Academy of Medicine, January 10, 1961.

from this time on taxes and laws against inebriacy became more and more prominent. It is said that the extremely high cost of alcoholic beverages in England has reduced alcoholism in that country. There are many discriminatory laws against the inebriate but often they penalize the poor and the ignorant and leave untouched the rich and intelligent. This legal or political era reached its zenith with the enactment of national prohibition in World War I. We can all be thankful that this is no longer a political issue and that the "noble experiment" has disappeared from the American scene.

The third approach to the study and treatment of alcoholism is the medical one. Benjamin Rush, sometimes called the first American psychiatrist, wrote on alcoholism 158 years ago in 1804 at the same time that Trotter in England advanced along the same lines. Unfortunately, the medical profession has been quite slow in accepting alcoholism as their problem. We may safely say that the current modern movement did not begin until 1930 when the Yale Center for the Study of Alcoholism was opened. It was not until 1944 that the National Council on Alcoholism was formed and it was not until 1947 that the Industrial Medical Association appointed a committee on alcoholism. The American Psychiatric Association waited until 1948, the year that the Virginia State Health Department established the Division of Alcohol Studies and Rehabilitation. Antabuse was discovered in the same year. It was not until 1951 that the American Medical Association appointed its first committee to study alcoholism at the same time that Consolidated Edison established the first industrial clinic for alcoholics. It is noteworthy that most of the large industries in the United States have established such clinics and have set up an enviable record of restoring to productivity over 75% of the inebriates treated. This was approximately the same time that Roger Williams brought forth his studies on nutrition and alcoholism. Unfortunately his predictions as to the therapeutic usefulness of vitamins has not been borne out. In 1944 only 96 general hospitals in the United States would accept an inebriate as a patient. Physicians were not interested and business managers predicted financial ruin if hospitals treated these patients who were considered paupers, dead beats and without credit in the community. A nationwide study, however, established the surprising fact that the average alcoholic is better credit risk than the average non-alcoholic hospital patient. This and other efforts brought about a change in attitude so that by 1956 there were over 3,000 general hospitals accepting these patients. Again it is noteworthy that up until this time a physician had no opportunity to gain knowledge or experience along these lines. The hospital in which he received his training ordinarily refused to admit these patients so he had no material from which to learn. The young physician went into practice with the same prejudices and biases with which he grew up. Studies in the middle 1950's in pharmacology, chemistry and physiology proceeded rapidly and we can say with assurance that our knowledge of the metabolism and biochemistry of alcohol in the body is most impressive.

The fourth approach to the problem of alcoholism may be called the humanitarian movement. This first came to notice in 1840 when a "knot of reformed drunkards" banned together to help themselves in the Washingtonian society. They very rapidly achieved an impressive membership of almost half a million. The movement collapsed largely because of involvement in politics. The interest passed from alcoholism to legislation, lobbying and other political activities so that the movement quickly burned itself out. In 1935 Alcoholics Anonymous was formed on more stable principles and the more than 6,000 worldwide AA groups and quarter of a million members have accomplished more in the rehabilitation of individual inebriates than all the rest of the efforts that we know of put together. Psychiatry is part of the humanitarian effort but it is notable principally for the absence

of a leader and a general inclination of psychiatrists to disown the problem. They have developed conditioned reflex therapy, psychotherapy, mileu therapy and other approaches. I have yet to meet a psychoanalyst who has ever treated a patient who was primarily an alcoholic.

Alcoholism is a most serious problem in the United States. Approximately five million inebriates need help. This is more serious than mental illness. The patient with a mental illness lives longer than the inebriate, has more effective methods of treatment available, suffers less stigma and has a better chance of recovery. Most treatment programs such as the one at Eastern State Hospital utilize all methods available combined in an accepting, non-authoritarian, nonpunitive approach. Religious activity, AA meetings, education, psychotherapy, drug therapy, occupation therapy and mileu therapy are all utilized. We do have successes but at times we may not know why we have succeeded. A twenty-eight year old woman was admitted to Western State Hospital in deplorable condition. She had pneumonia and weighed 87 pounds. Cirrhosis of the liver had produced ascites and a trocar opening in her abdomen had not healed with the result that she was steadily dripping ascitic fluid. She was covered with feces and her hair had to be clipped because of matting and infestation with vermin. It was reported that her brother-in-law lived with the patient and her family and shared her bed with her husband. Besides good and successful medical care this patient received the full armamentarium of therapy for alcoholism and was sent out on trial visit. Certainly this was not a favorable case but when she returned a year later for an interview she was unrecognizable. She weighed 128 pounds, had a permanent, was spic and span in a new dress. She had brought along her three small children and her husband. It was like a family reunion and the patient had not had a drink for over a year. When I tried to find out what had brought about the change I was defeated. The patient had not kept her appointment at the alcoholic clinic, had not attended AA or her church, had not taken antabuse or tranquilizers and had not seen her local doctor. Incidentally her brother-in-law was still living in the home. Perhaps I underestimated her good sense.

In conclusion, I am reminded of Dr. Ebbe Hoff's prediction that alcoholism may play the same role in this century that typhoid fever did in the past century. So long as typhoid was treated in the individual it ran rampant. Only after new methods and new ideas such as sanitary engineering, inoculation, public health laws, etc. were brought into action was typhoid conquered. It is devoutly to be hoped that such new measures will be available in the future for the conquest of alcoholism.

No Drug Breakthroughs in USSR

A couple of years ago I spent a good deal of time with a Russian mission representing the drug industry, including a Mr. Natradze who, I understand, is or was the head of the whole Russian pharmaceutical operation. From him I learned about the Soviet system, and it *does* supply medicine for the sick. But in the 40-odd years of its existence the Soviet Union—despite its achievement in space—has not produced a single important pharmaceutical breakthrough.—*The Generic Fallacy:* Francis Boyer, Chairman of the Board, Smith, Kline & French Laboratories.

Editorial . . .

MCV Postscript

EVER SINCE the editorial "Foggy Days at MCV" appeared in the *Richmond News Leader* on November 4, 1961, the writer has kept a file of newspaper clippings on this unfortunate controversy in order that a definitive article could be written. From "Foggy Days" to "Peace at MCV" (see guest editorial in this issue) 198 days have passed and forty-five clippings have accumulated. One news item alone (*Richmond Times-Dispatch,* February 25) required more than an entire page for its publication.

Manifestly an article that incorporated all of the thoughts expressed in these items would far exceed the limit of one or even a series of editorials. In view of this, only one aspect of the many differences involved will be mentioned. Shortly after Dr. William T. Sanger became President of the Medical College of Virginia, a number of new department heads were appointed to the faculty. Most of these appointees were a little older than the usual professorial appointment by present day standards. This resulted in many vacancies occurring at the College through death, disability, and retirement during the past five years. A new dean of medicine and 22 department or division heads out of a total of 33 have been appointed during the past few years. An academic turnover of this degree, in so short a time, rarely occurs.

These new arrivals were well trained and many brought with them a missionary zeal and an understandable desire to make over their departments in the image of the medical schools in which they received their training. Only three of these new faculty members were graduates of the Medical College of Virginia.

A completely new faculty, of necessity, is assembled whenever a medical school opens its doors for the first time. One fundamental difference exists, however, between the initial faculty in a new school and a new faculty in an established institution. New schools do not have alumni. The Medical College of Virginia, on the other hand, had a large and loyal alumni body. Many of their professors had been men of magnetism, warmth, and considerable civic stature, who were remembered affectionately by the graduates throughout this area.

This meant that the recent appointees were subjected to a somewhat closer and possibly more critical scrutiny than is the usual lot of new professors. They, in turn, were doubtless aware of this and limited their social and to a certain extent, scientific activities largely to their own group. There was little communication between the newcomers and the majority of the faculty holdovers from the former administration and even less with the "uptown" practitioners.

The new professors rarely attended the meetings of the Richmond Academy of Medicine. This caused further estrangement and the stage was set for the dispute which was triggered last fall by the publication of

an unfortunately worded letter from a "faculty evaluation committee" composed largely of recent arrivals to these parts. A chain reaction followed. The controversy spread rapidly to include questions of curriculum, teaching, research, attitudes toward socialized medicine and lack of rapport with the public, as well as with their fellow physicians in Virginia. The students, house officers, faculty, Administration, Board of Visitors and physicians throughout the city hastened to join in the melee. The state legislature, which was in session, wisely refrained from taking sides.

Committees were appointed to look into the matter, investigations were held, meetings of various groups took place, newspapers carried numerous letters to the editor and reams of testimony were given. A study group appointed by the Richmond Academy of Medicine made recommendations to the Board of Visitors of the Medical College and representatives of the Richmond Academy of General Practice also appeared before that body.

Unquestionably good has come from all of this for the air has been clarified to a considerable degree. The Board of the Medical College has appointed Charles P. Cardwell, Jr., the popular Director of Hospitals to the additional post of vice-president "with general responsibility in the area of community relations." Dr. W. T. Hagood, Jr. of Clover, a former member of the Medical College Board of Visitors and retiring president of the Virginia Academy of General Practice was also designated as consultant in general practice to the College. This was a happy choice, for the public relations of the college in recent years have been notably weak in terms of the general practitioner.

Mr. Cardwell's initial statement after his appointment was conciliatory and heartening. He said, in part, "I accept these new opportunities for service to MCV in humility but with a determination to do what I can for the institution which I have learned to love over the last twenty-two years. I have no secret formula to create good public relations or a special mechanism to get our story over to the public. To me public relations have always meant a composite of all of the personal contacts and associations which we, as members of the MCV family, make almost hourly. Courtesy and good manners and a sensitive appreciation and awareness of the feelings and opinions of others seem to me to be the chief ingredients of good public relations. We have to learn to respect and admire our institution and to live in peace and harmony with our colleagues before we can expect the public to accept us."

This is all to the good for between the Medical College and the medical community, no differences exist that a little humility on the part of the newcomers, plus good will on the part of the natives and a mutual forbearance will not resolve.

Harry J. Warthen, Jr., M.D.

The Problem of Lay Laboratories

THE DAILY PRESS focused public attention a few months ago on a number of abuses taking place in medical laboratories in some of our largest population centers. Charges of incompetence and professional dishonesty were leveled at laboratories operated by inadequately trained and poorly motivated individuals. Health authorities had to intervene and corrective actions were taken in many instances.

The College of American Pathologists recently completed a survey of the lay laboratories in the 50 states and the District of Columbia. The survey disclosed revealing data which should be brought to the attention of the entire medical profession.

A lay laboratory as defined by Omer E. Hagebusch, M.D., of St. Louis, Missouri, is "a laboratory operated by one other than a physician". There are 1,783 such lay laboratories in the United States.

The states with the greatest population centers—New York, California, Texas, New Jersey and Pennsylvania—have the largest number of these laboratories. Minnesota is an exception because the performance of any laboratory test is considered by law to be practice of medicine and is regulated by the statutes regulating the entire profession.

Virginia with 27 lay laboratories occupies the thirteenth place in the United States.

In addition to lay laboratories operated by technicians, there is a "grey zone" of laboratories "fronted" by physicians who lend their prestige and name to laboratories without actual supervision of their operation. In this category, 135 laboratories were reported throughout the country. Virginia with 15 such laboratories allegedly occupies the second place among the states. Twenty-three lay laboratories (none in Virginia) are even "fronted" by renegade pathologists.

Admittedly not all lay laboratories are guilty of inferior professional and technical standards. Some of them operated by individuals with a doctorate degree in biochemistry or bacteriology are run competently and efficiently, although they may not adhere to the ethical principles of the medical profession such as refraining from advertising, offering cut rate prices, solicitation of business thru circulars, etc. Only twelve states reported that advertising by lay laboratories does not constitute a problem.

The lay laboratories owe their very existence to the support of physicians. Reputable members of our profession who would not think of consulting a medical cultist or any other type of medical quack blithely refer their diagnostic laboratory work to lay laboratories of dubious professional standing, thus sponsoring a deplorable form of medical quackery.

A great deal of pressure is exerted by directors of lay laboratories and

by self styled organizations of medical technicians not sponsored by the American Society of Clinical Pathologists and American Medical Association to obtain licensure for lay laboratories. A successful legislative effort granting license to lay laboratories not based on hospitals would lend prestige to their existence and compensate for their lack of reputable credentials.

The traditional "grandfather clause" which is usually included in licensing statutes would sanction the operation of existing inferior lay laboratories and even encourage the opening of more lay laboratories just before the deadline established for the validity of any new licensing law.

A number of laboratories sprang up in spare bedrooms and unused garages in one of the states to the south of Virginia within a few weeks before licensure became effective in order to qualify under the grandfather clause.

Appropriate resolutions defining the attitude of the medical profession to the issue of lay laboratories are being passed by the governing bodies of the state and national pathologists organizations as well as by the state and national medical associations. Similar resolutions will be brought on the floor of the forthcoming annual meetings of our professional organizations.

Simon Russi, M.D.

News . . . .

New Members.

Since the list published in the June issue of the Monthly, the following doctors have been admitted into membership in The Medical Society of Virginia:

William Abraham Cassada, Jr., M.D., Brookneal
Marlin B. Ewing, M.D., Charlottesville
James Chester Gerdes, M.D., Richmond
Bernard Herman Kasinoff, M.D., Staunton
Richard E. Kelso, M.D., Falls Church
Albert Laszlo Lichtmann, M.D., Arlington
Scott Wells Little, M.D., Roanoke
Mark Early Myers, M.D., Harrisonburg
Berryman Voss Neal, M.D., Newport News
John Emerick Peterson, M.D., Falls Church

Virginia Academy of General Practice.

At the annual meeting of the Academy, held in Roanoke, May 10-13, Dr. Harry M. Frieden, Norfolk, was installed as president, succeeding Dr. William G. Hagood, Jr., Clover. Dr. Frank G. Daniel, Charlottesville, was named president-elect; Dr. John L. Harris, Roanoke, vice-president; Dr. J. W. Carney, Newport News, secretary; and Dr. W. P. Morrisette, Midlothian, treasurer.

Dr. David Smith,

Charlottesville, was elected vice-president of the International Academy of Pathology at its annual meeting in Montreal. He is professor of pathology at the University of Virginia.

Dr. Addison M. Duval,

Williamsburg, has been re-elected treasurer of the American Psychiatric Association for the fourth consecutive year. This office carries membership on the Council and Executive Committee of the Association. The annual meeting was held in Toronto in May.

Dr. Emmett C. Mathews,

Richmond, has been elected national president of the University of Richmond alumni association.

Dr. W. T. Hagood, Jr.,

Clover, has been appointed consultant in general practice to the Medical College of Virginia.

Dr. N. Talley Ballou,

Fredericksburg, has been named a member of the City School Board for a term of three years. He succeeds Dr. James G. Willis and is the fourth medical man in a row to assume this seat.

Dr. J. Francis Dammann, Jr.,

Professor of surgical cardiology at the University of Virginia, has been granted a career research award by the National Institutes of Health of the United States Public Health Service. This award, made for a five-year period and subject to renewal, will provide him with a salary comparable to that received by full professors. This program is a new one for the National Institutes and only a few awards have been made.

Dr. William A. Shelton,

Boydton, has been elected director of the Roanoke River Branch of the Association for the Preservation of Virginia Antiquities.

Dr. Theodore G. Denton

Has resigned as superintendent of Central State Hospital, Petersburg. He has accepted the position of Director of the Day Care Hospital in Baltimore.

Dr. Papper Resigns.

Dr. Solomon Papper, head of the department of preventive and environmental medicine of the Medical College of Virginia, has resigned. He will move to Albuquerque, New Mexico, on September 1st, where he will be professor of medicine and chairman of that department at the University of New Mexico's new school of medicine.

Montgomery County Medical Society.

At the Spring meeting of this Society, held in Radford on May 31st, Dr. G. R. Smith, Shawsville, was elected president, succeeding Dr. Charles L. Boatwright, Blacksburg. Dr. E. P. Ambrose, Radford, was named vice-president, and Dr. J. H. Smith, Christiansburg, secretary-treasurer.

The scientific program was presented by Dr. Emory Irvin, VPI physician, whose subject was The Prevention, Diagnosis and Treatment of Athletic Injuries. Dr. Lloyd Hobbs, dentist of Blacksburg, presented and discussed the various types of prosthetic appliances to prevent dental injuries during contact sports.

The Virginia Rehabilitation Association

Will act as host to the Region III, National Rehabilitation Association meeting which will be held at the University of Virginia, July 30-August 1. The program for the 31st will be given over to rehabilitation of the mentally retarded, and the mental patient will be the subject on the 1st. All sessions are open to the public.

Portrait Presented.

The class of 1948 of the University of Virginia has presented a portrait of the late Dr. Tiffany Johns Williams to the University. The presentation was made during the meeting of the Virginia Obstetrical and Gynecological Society, May 4-5, held at the University. Dr. Williams was professor of obstetrics and gynecology at the University.

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Obituaries . . . .

Dr. Bocock.

WHEREAS, Dr. James Harry Bocock, our friend and fellow physician, whose death from myocardial infarction occurred on December 14, 1961, and

WHEREAS, We his colleagues and friends who recognize in his passing a great loss to the profession and the community, wish to pay tribute to his memory by unanimous adoption of this resolution:

Dr. James Harry Bocock was born in Roanoke, Virginia, on February 15, 1914. He attended the Medical College of Virginia, receiving the Bachelor of Science Degree in Pharmacy in 1936. His interest in medicine was great and he returned to receive the M.D. Degree from the Medical College of Virginia in 1946. After becoming a Pharmacist he operated his own Pharmacy and later served as Medical Service Representative for the Schering Corporation. After finishing Medical School in 1946, he served three years with the United States Public Health Service at the U.S. Marine Hospital in Norfolk, serving as a rotating intern and a resident, at which time he was Assistant to the Chief of the Medical Service. In 1949 he took over the practice of the late Dr. I. L. Chapman in South Norfolk and engaged in the General Practice of Medicine until his death. He was a member of the American Academy of General Practice, the American Medical Association, The Medical Society of Virginia and the Norfolk County Medical Society.

WHEREAS, Dr. James H. Bocock, was held in high respect by his colleagues and associates and performed a meritorious service to his many patients and friends, making his services available at all times to the poor as well as the rich, both as a friend and physician, and

WHEREAS, We his fellow members of the Norfolk County Medical Society unite with his many grateful patients and friends to share with his family in their bereavement. His love for his patients and friends will be missed by all who were privileged to know him and who were served by him.

NOW, THEREFORE, BE IT RESOLVED by the Norfolk County Medical Society on this the First Day of May 1962, that we convey to his family our sincere sympathy and deep respect for his memory.

BE IT FURTHER RESOLVED, that a copy of this resolution be sent to his family, a copy to the Virginia Medical Monthly and a copy to be preserved as part of the permanent records of this society.

WILLIAM B. WILEY, M.D., *Chairman*
JOHN FRANKLIN, M.D.
W. STANLEY JENNINGS, M.D.

Dr. Etheridge.

It is with profound sorrow that the Norfolk County Medical Society records the death of one of its oldest members.

Dr. Herbert Rogers Etheridge was born in 1887. He was graduated in Medicine at the University of Virginia in 1913. He did post-graduate work in New York City. He served in the Army during World War I, attaining the rank of Captain.

Dr. Etheridge will be remembered by many of the older members and fewer younger men as he was in latter years retired because of ill health.

He was always willing and ready to give a helping hand to all who called him and his quiet reserve instilled confidence in those he helped. He had a talent for mechanical things and this made him a skilled operator.

The Society wishes to again express its sorrow for the passing of Dr. Herbert Ethridge and enter upon the minutes this testimony to his memory.

BE IT RESOLVED that this expression of the Society be sent to the family of Dr. Etheridge and also to the Virginia Medical Monthly.

BEVERLEY R. KENNON, III, M.D.
A. D. MORGAN, M.D.

Dr. Baum.

With deep dismay and sorrow, the Alexandria Medical Society records the sudden death on March 29, 1962, of its immediate past Vice-President, Dr. Jerome N. Baum.

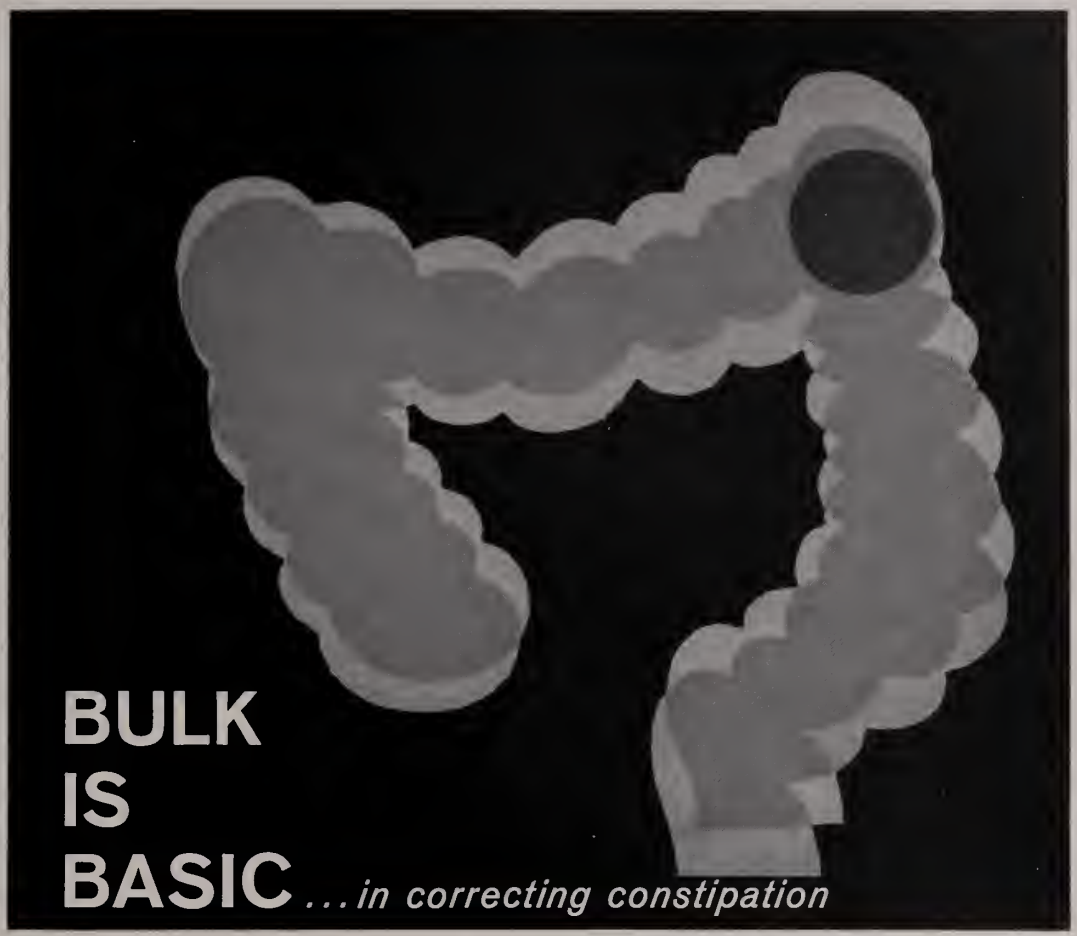
Dr. Baum was born in Philadelphia on January 5, 1916. He was educated at Friends Select School in Philadelphia; he was graduated from the University of Pennsylvania in 1937, and he received the degree of Doctor of Medicine from Hahnemann Medical College in 1941. Dr. Baum served in the United States Army Air Corps during World War II, and he attained the rank of Lieutenant Colonel. Dr. Baum and his wife, Natalie, were married in 1941, and Mrs. Baum and two daughters, Carol and Susan, survive him. Dr. Baum entered into private general practice in Alexandria in 1946, and several years later became physician to Melpar, Inc., and consultant in Aerospace medicine for this company.

Dr. Baum was a member of the Alexandria Medical Society, and in a span of sixteen years served the Society as an officer, committee chairman and member of the Executive Committee. He was a member of the American Medical Association, The Medical Society of Virginia, Aero-Space Medical Association, the Industrial Medical Association, the Heart Association of Northern Virginia, The American Heart Association, and the Council on Basic Sciences of the American Heart Association, and the American Association for the Advancement of Science.

Dr. Baum leaves to his family, friends and colleagues the memory of a conscientious family physician, respected for his generosity with his time, and the productive application of his energy and ability; a spirit enthusiast with his hobbies of artistic creativity and his love of music; and an almost boundless visionary in his interests in biological telemetry and the application of electronics to medicine in the problems of human space flight.

BE IT THEREFORE RESOLVED THAT a copy of this resolution be transmitted to Dr. Baum's family, a copy to the Virginia Medical Monthly, and a copy to be preserved in the permanent records of the Alexandria Medical Society.

ALVIN C. WYMAN, M.D., *Chairman*
MILTON R. STEIN, M.D.
ALFRED ABRAMSON, M.D.



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1. Best, C. H., and Taylor, N. B.: The Physiological Basis of Medical Practice, ed. 6, Baltimore, The Williams & Wilkins Company, 1955, p. 578.

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1. Meyers, G. B.: Ind. Med. & Surg. 26:3, 1957. 2. Murray, R. J.: N. Y. St. J. Med. 53:1867, 1953.

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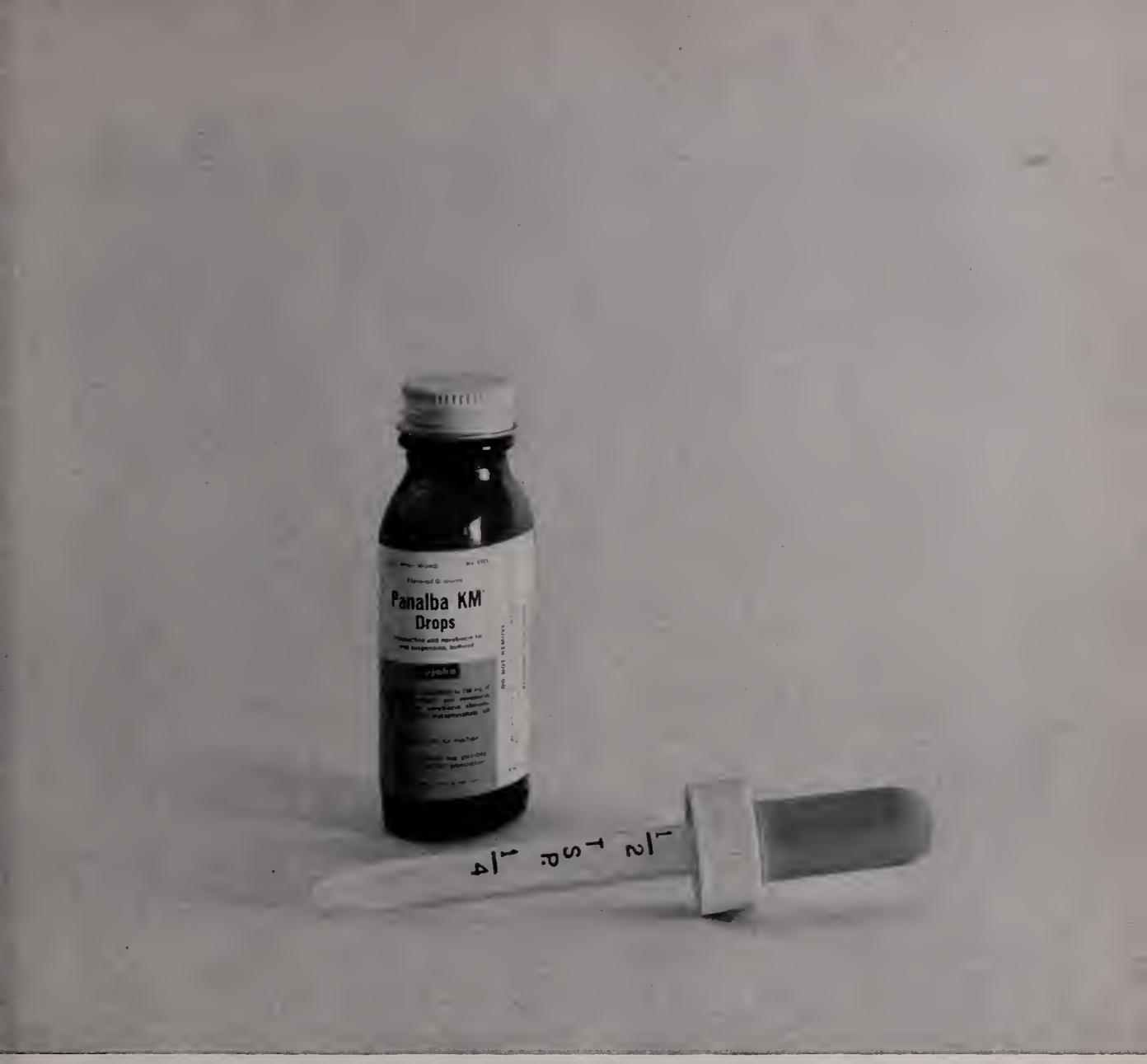
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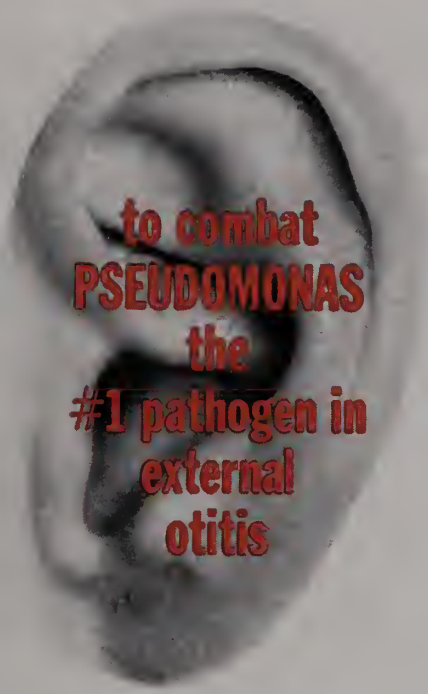
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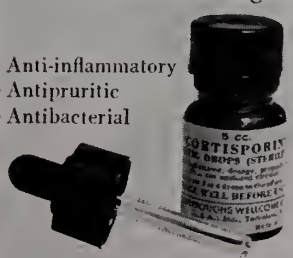
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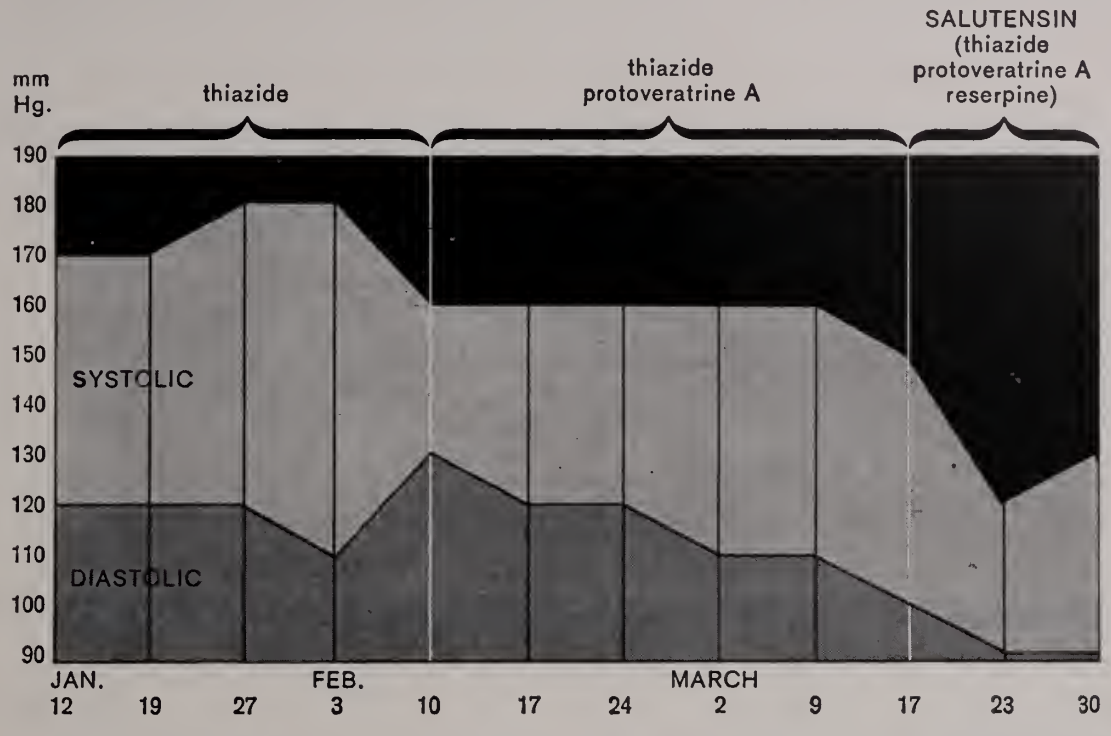
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References: 1. Fries, E. D.: In Hypertension, ed. by J. H. Moyer, Saunders, Phila., 1959 p. 123. 2. Fries, E. D.: South M. J. **51**:1281 (Oct.) 1958. 3. Finnerty, F. A. and Buchholz, J. H.: GP **17**:95 (Feb.) 1958. 4. Gill, R. J., et al.: Am. Pract. & Digest Treat. **11**:1007 (Dec.) 1960. 5. Brest, A. N. and Moyer, J. H.: J. South Carolina M. A. **56**:171 (May) 1960. 6. Wilkins R. W.: Postgrad. Med. **26**:59 (July) 1959. 7. Gifford, R. W., Jr.: Read at the Hahnemann Symp. on Hypertension, Phila. Dec. 8 to 13, 1958. 8. Fries, E. D., et al.: J. A. M. A. **166**:137 (Jan. 11) 1958. 9. Ford, R. V. and Nickell, J.: Ant. Med. & Clin. Ther. **6**:461, 1959.

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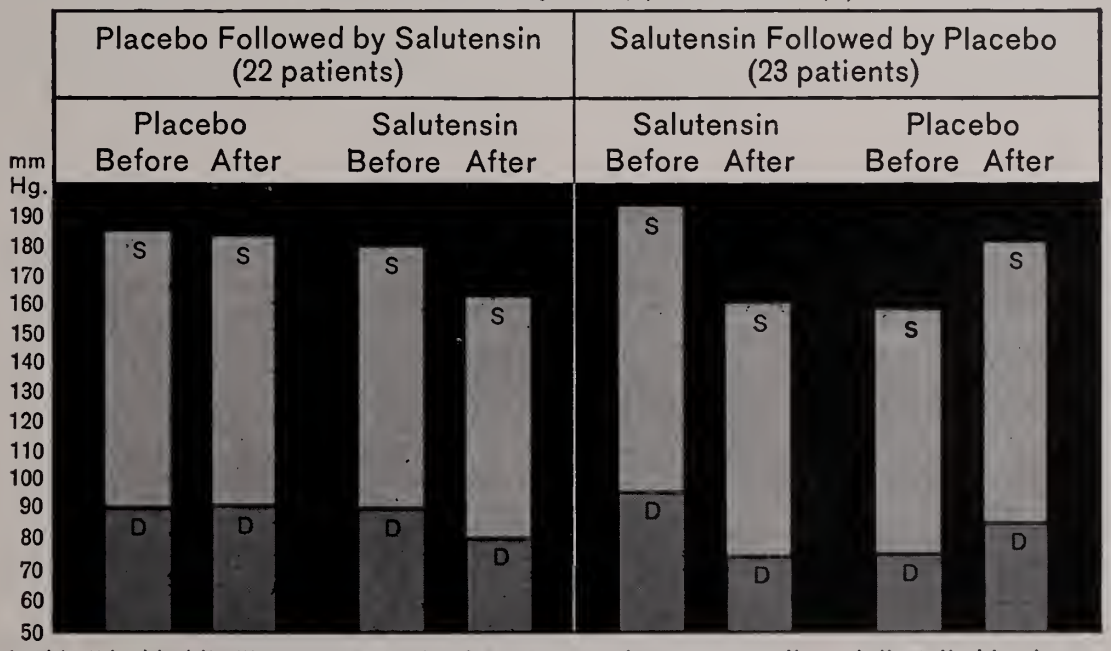
11 WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS BY SERIAL ADDITION OF THE INGREDIENTS IN SALUTENSIN IN A TEST CASE

(Adapted from Spiotta, E. J.: Report to Department of Clinical Investigation, Bristol Laboratories)



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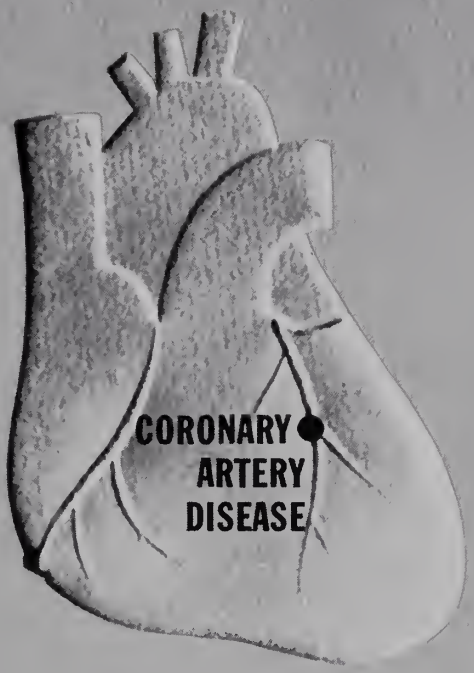
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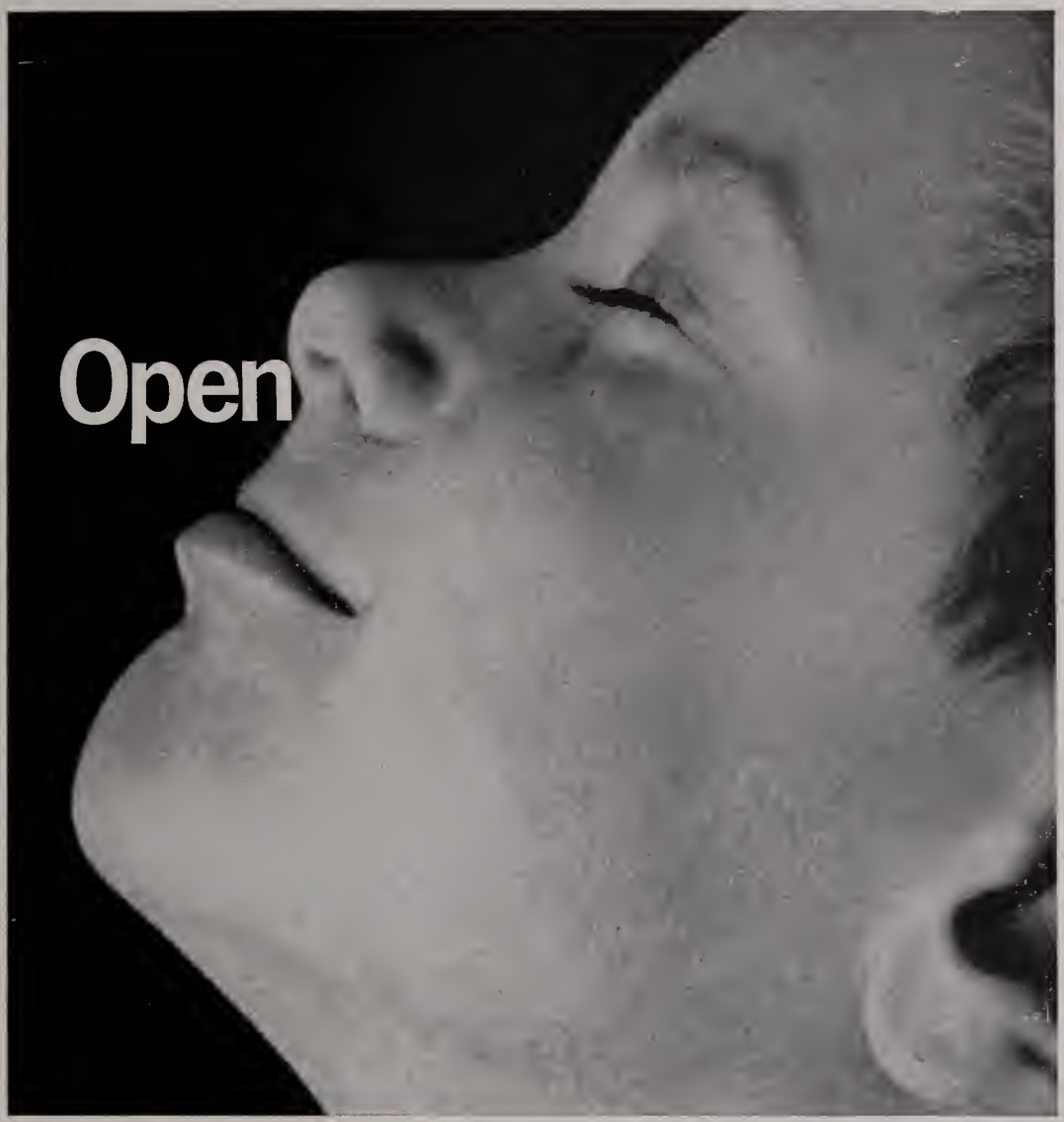
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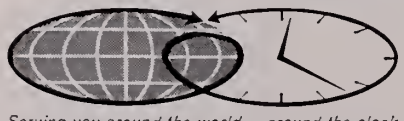
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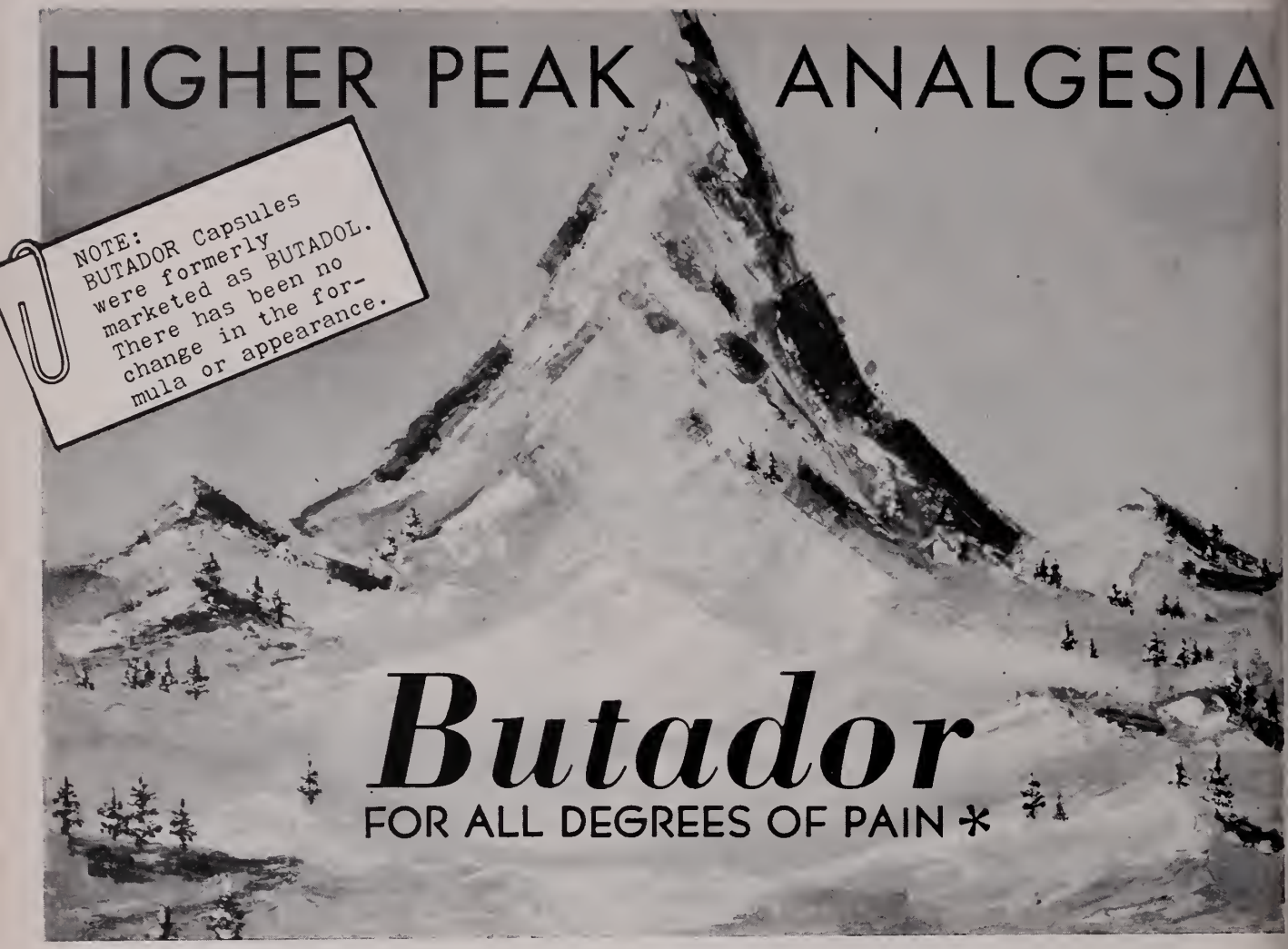
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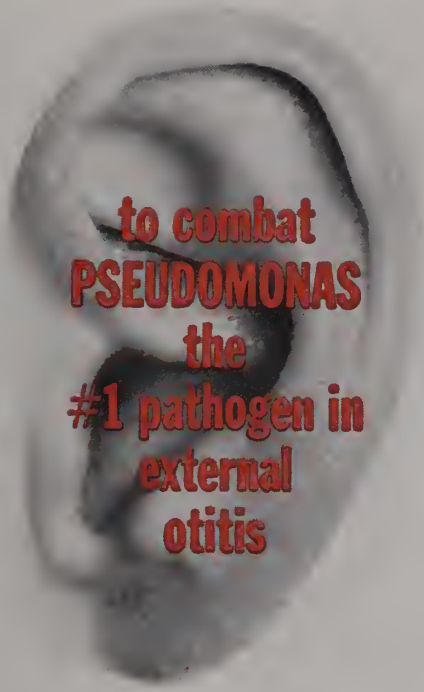


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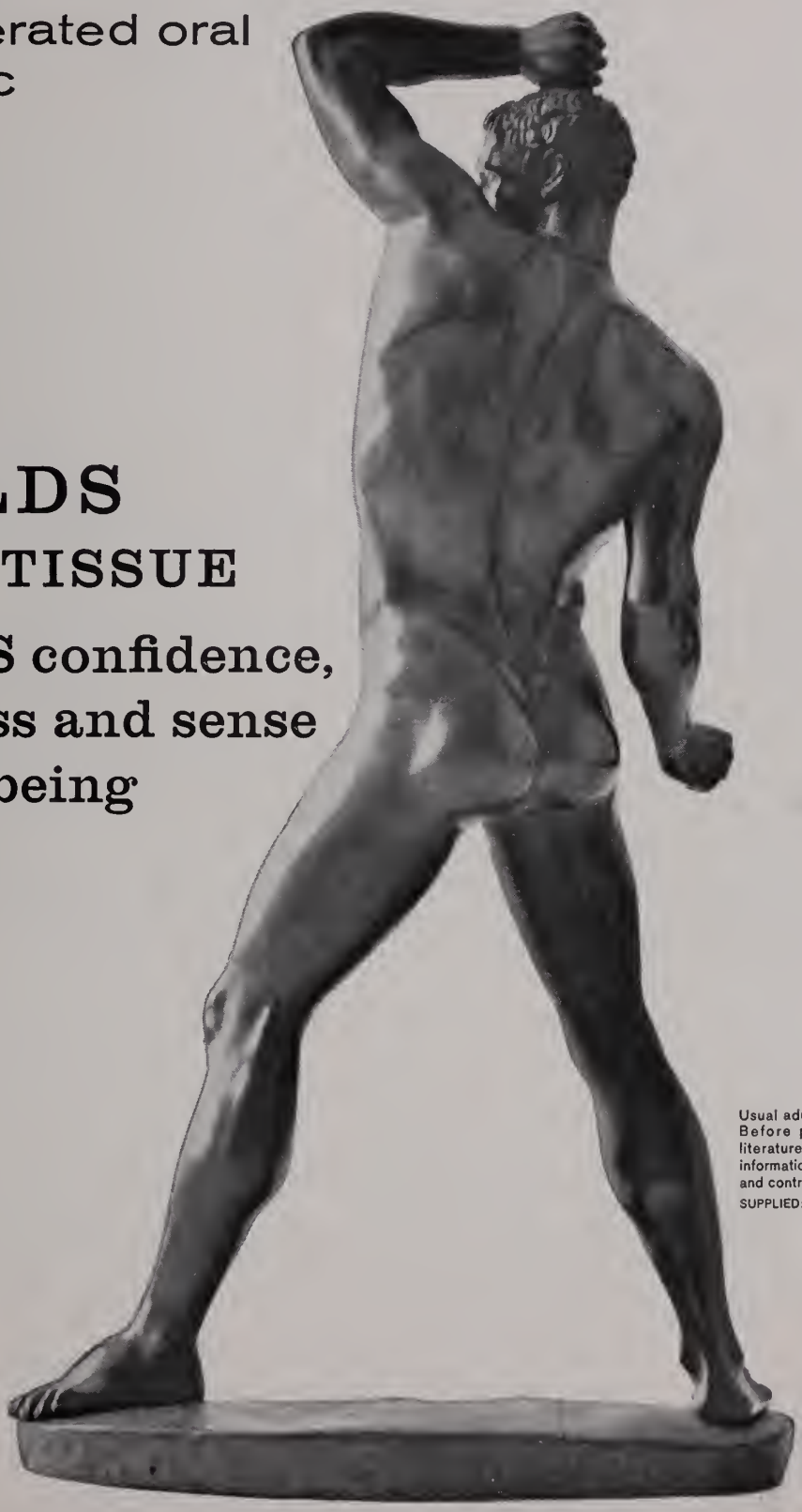
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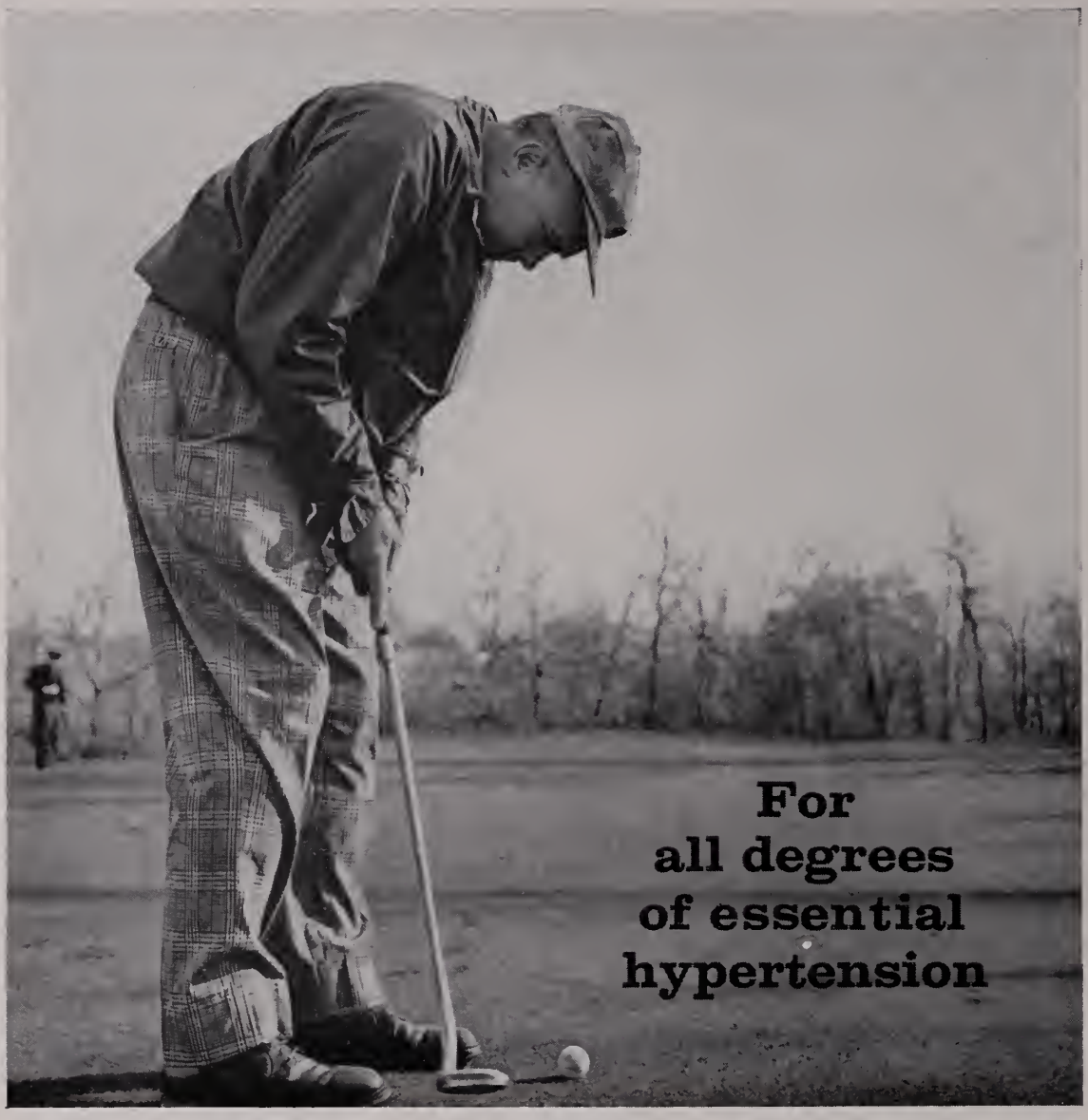
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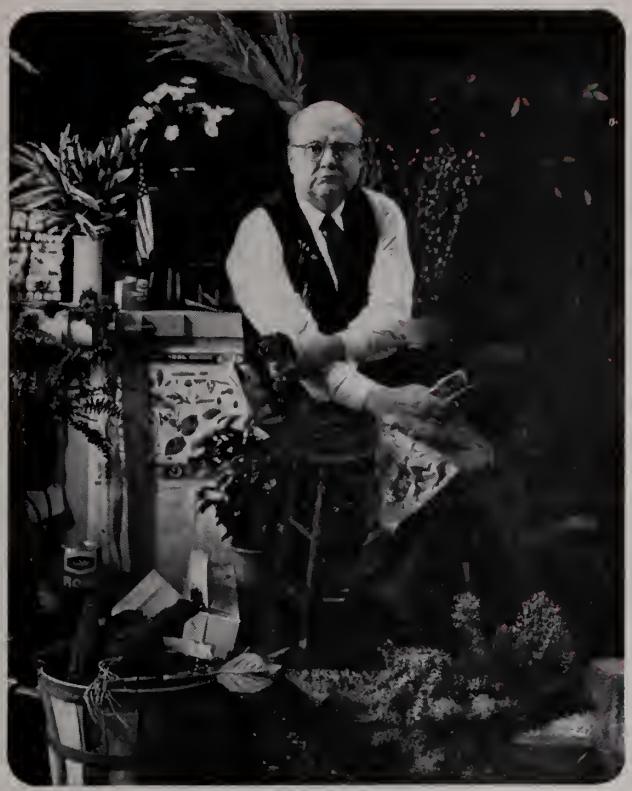
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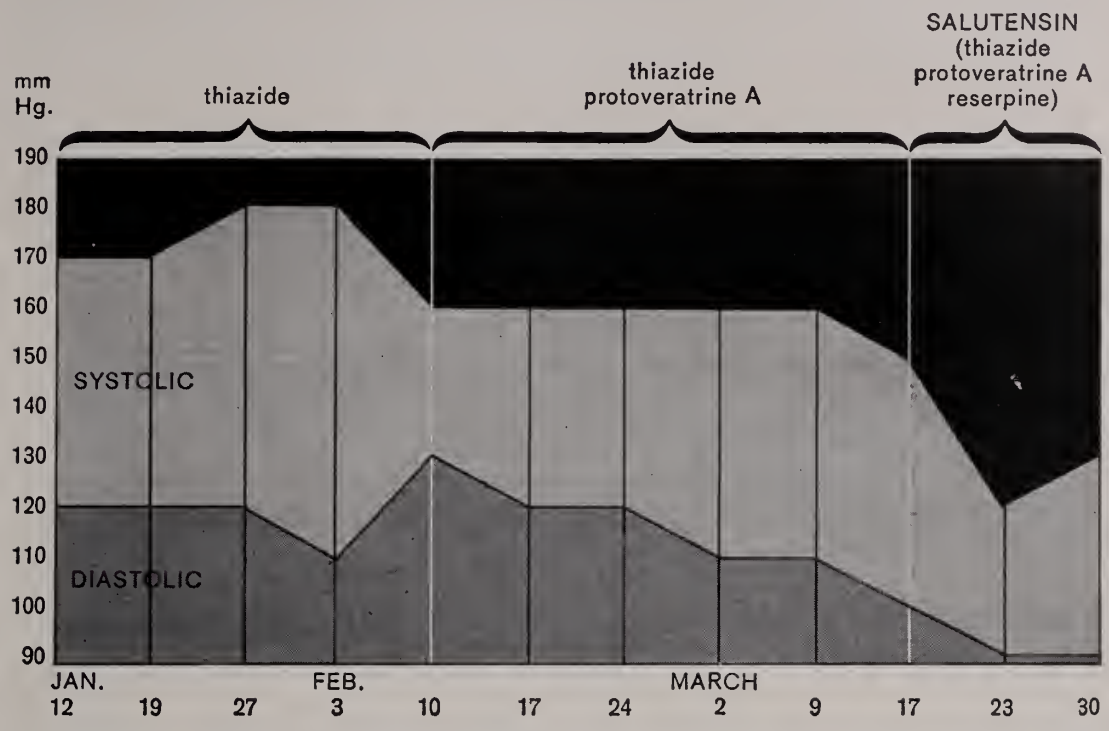
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References: 1. Fries, E. D.: In Hypertension, ed. by J. H. Moyer, Saunders, Phila., 1959 p. 123. 2. Fries, E. D.: South M. J. **51**:1281 (Oct.) 1958. 3. Finnerty, F. A. and Buchholz, J. H.: GP **17**:95 (Feb.) 1958. 4. Gill, R. J., et al.: Am. Pract. & Digest Treat. **11**:1007 (Dec.) 1960. 5. Brest, A. N. and Moyer, J. H.: J. South Carolina M. A. **56**:171 (May) 1960. 6. Wilkins R. W.: Postgrad. Med. **26**:59 (July) 1959. 7. Gifford, R. W., Jr.: Read at the Hahnemann Symp. on Hypertension, Phila. Dec. 8 to 13, 1958. 8. Fries, E. D., et al.: J. A. M. A. **166**:137 (Jan. 11) 1958. 9. Ford, R. V. and Nickell, J.: Ant. Med. & Clin. Ther. **6**:461, 1959.

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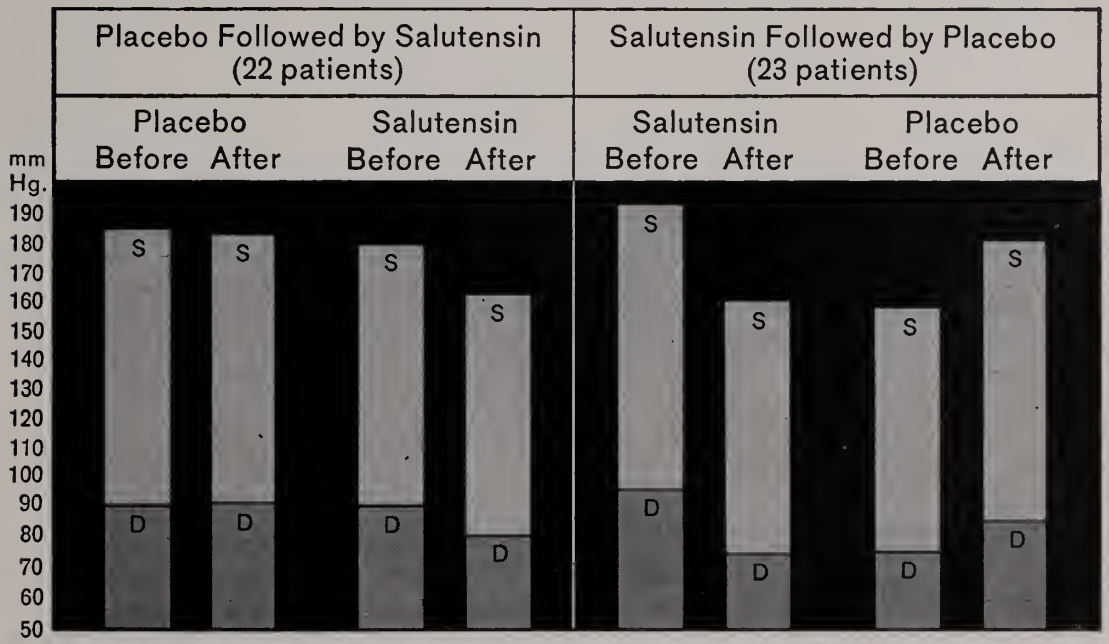
11 WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS BY SERIAL ADDITION OF THE INGREDIENTS IN SALUTENSIN IN A TEST CASE

(Adapted from Spiotta, E. J.: Report to Department of Clinical Investigation, Bristol Laboratories)



3½ WEEKS TO LOWER BLOOD PRESSURE TO DESIRED LEVELS USING SALUTENSIN FROM THE START OF THERAPY IN A "DOUBLE BLIND" CROSSOVER STUDY

Mean Blood Pressures–Systolic (S) and Diastolic (D)



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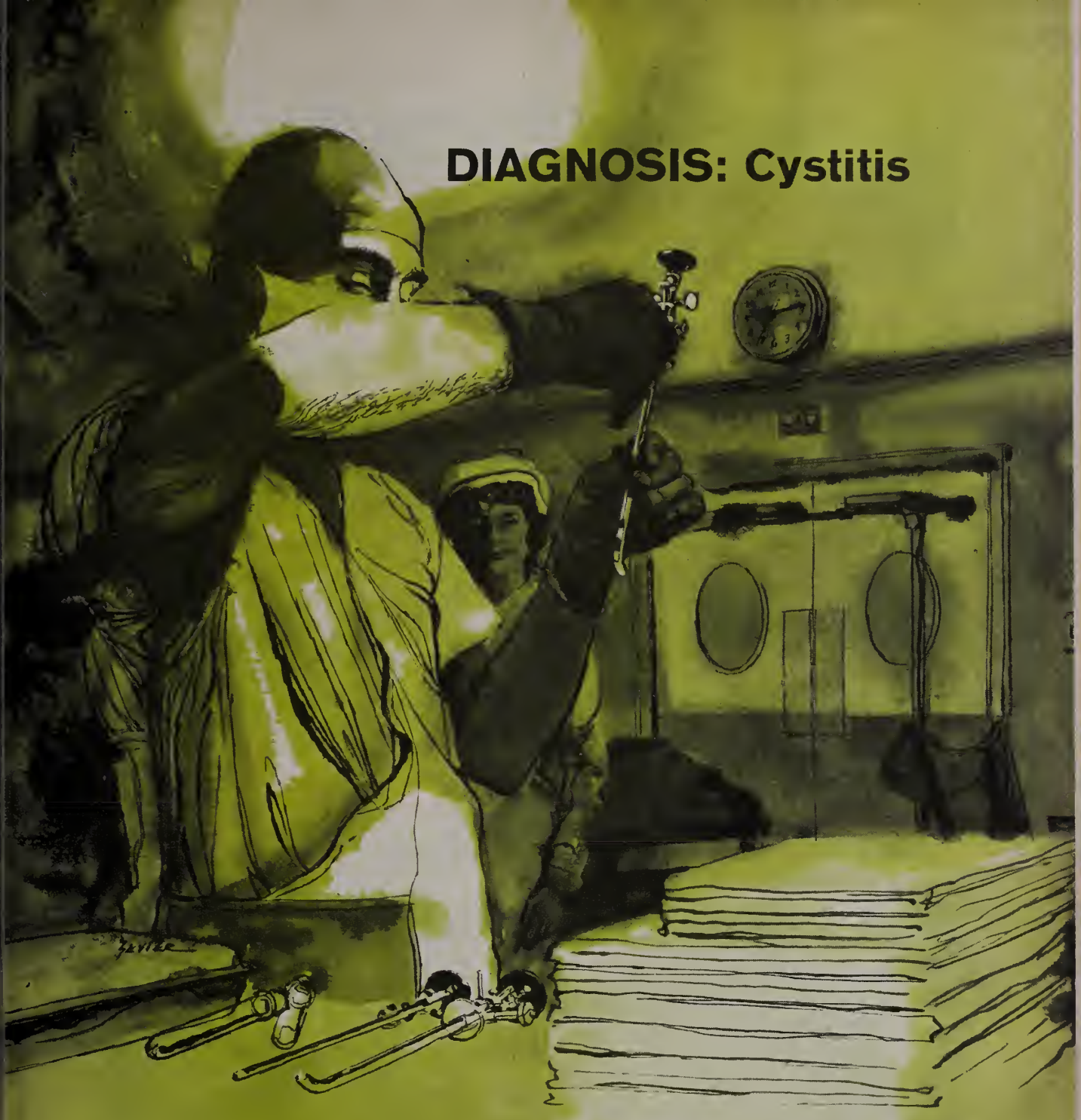
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The Virginia
MEDICAL MONTHLY

August, 1962
Vol. 89, No. 8
Whole No. 1323

Guest Editorial . . .

A Critical Analysis

THE MEDICAL LITERATURE today contains many isolated case reports and papers listing small series of cases. These are of interest, but contribute little toward progress in medicine. This is especially true when conclusions are drawn from one case or from a small number of similar patients. Often a control series is lacking and thought of a biostatistical analysis has never entered the mind of the author.

To write articles and draw valid scientific conclusions as to the best mode of treatment, when one is in private practice, is admittedly difficult and idealistic. However, to draw conclusions which may be incorrect is to encourage the reader of such publications to embark on an unproven form of medical or surgical treatment. It behooves us both as readers and writers to analyze every article we read or write and ascertain, if possible, that the conclusions and summary are fully justified. Every article in which *conclusions* have been drawn must fulfill certain requirements:

1. There must be a sufficiently large number of similar patients with comparable disease entities.
2. There must be a control series of similar type cases either untreated or treated by a different method for comparison.
3. There must be a biostatistically significant difference in the result of treatment when comparing one method of surgical or medical treatment with another, or with an untreated series of patients. It is illogical to assume that ten patients treated by surgery with eight good results have received a better form of treatment than ten similar patients treated medically because in the latter group only seven good results occurred. The difference is ascribed more readily to the element of chance.

Furthermore, as many variables as possible must be eliminated when comparing operative results. It is preferable that all patients be operated upon by one surgeon or one group rather than comparing results from different surgeons or groups. Criteria as to what represents a cure or survival will vary depending upon the author's definition. A five-year survival to one author may mean a patient free of clinical recurrence or metastasis of his cancer at the end of five years, whereas another author may count as a five year survival the patient who lives five years and one day and then dies of his carcinoma. All too often the patient reported as responding satisfactorily to a specific treatment also will have had previous or concurrent medications or surgery which have influenced the patient's course and the result. Another fallacy in drawing conclusions is the evaluation of subjective responses. Objective results are better cri-

teria for evaluation of results of treatment. Subjective changes often reflect the functional element in the patient and the subconscious ideas of his physician.

Thyroid carcinoma is typical of the confusion created by numerous articles drawing different conclusions as to the best mode of treatment. Carcinoma of the thyroid is made up of various different and mixed histological types with entirely different clinical courses. Papillary carcinoma may have a survival time of ten to fifteen years without treatment. The author who draws a conclusion as to the effect of a particular type of treatment (medical or surgical) at the end of ten years is making a fallacious unscientific statement and the reader who accepts this illogical conclusion and proceeds with this recommended treatment is equally guilty of practicing poor surgery or medicine. New variables, such as iodine 131 and thyroxin, in the treatment of carcinoma of the thyroid, have been introduced in relatively recent years. It is, therefore, too early to evaluate *fully* these medications with or without surgery or as an adjunct to surgery. Without waiting, conclusions have been drawn as to the best form of treatment. Obviously the question cannot be scientifically answered at this time.

The various operations have many proponents. The surgical procedure directed at the primary growth may vary from simple enucleation to total thyroidectomy in histologically similar tumors. If regional glands are involved, the surgeon may do nothing, may pick at the nodes, may do a modified radical neck, or a true radical neck dissection. The variety of surgical procedures performed reflects the false security gained from the medical literature or from five or ten-year survivals in the individual surgeon's "personal" experience without regard to the natural course of the disease. At this time it is virtually impossible—either to have a large series of treated thyroid carcinomas of any one type or to be able to compare these with a large untreated series or differently treated series as controls or to watch these patients carefully for twenty years. If these are accomplished, however, one has a good, sound basis for treating thyroid carcinoma in a specific way.

I fully realize that we cannot stand idly by and fail to treat a disease because we have no sound scientific basis. We must treat them on the basis of the current statistics, but I would urge that patients be treated on the basis of the best available statistics from the best written and most scientific articles. I suggest that we delay *final* conclusions as to the best method of surgical or medical treatment until the proof is presented statistically. I suggest also that we examine closely with intellectual honesty the conclusions we tend to make on the basis of our own personal experience.

In essence then it behooves us to analyze critically. As an author one should write only if one has something to contribute. If one wishes to draw conclusions, then these should be logical conclusions. One should read with care and believe cautiously.

———

James S. Berger, M.D.

208 Medical Towers
Norfolk, Virginia

The Differential Diagnosis of Psychalgia and Psychophysiologic Disease of the Locomotor System

Introducing A New Classification

J. H. IRVINE, M.D.
New York, New York

Pain of psychic origin is resistant to treatment but is often seen by the physician. The author discusses and classifies pain of this type.

THREE TYPES of disease with pain referred to the locomotor apparatus will be discussed: (1) psychalgia, (2) psychophysiologic states, and (3) psychophysiologic states with objective evidence of disease of joints or tendon sheaths.

Psychalgia can be defined[1] as pain of psychic origin "without involvement of peripheral structures", i.e., hallucinated pain. It is relatively rare in arthritis clinics as compared to psychophysiologic disturbance which is among the most common causes of musculoskeletal complaint.

Psychophysiologic disease of the locomotor system means psychogenic disturbance of the physiology of bone, muscle, joint, and tendonous structures, (or any one or several of these). The basic pathophysiology remains to be elucidated. Only the clinical manifestations and end results of this pathophysiology will be considered in this paper.

Psychalgia and psychophysiologic disturbance may coexist in some cases.

Aside from pain, the clinical evidence for pathophysiology are stiffness, localized reproducible tenderness, nocturnal cramps in the feet or legs, and pain on motion of joints. Among possible after-effects of such pathophysiology are objectively demonstrable changes in joints or tendon sheaths (as in stenosing tenosynovitis).

The term psychogenic rheumatism as used in the past[2,3] was applied indiscriminately to psychalgias, to hysterical dysfunction, e.g., "hysterical bent back", and to psychophysiologic states, without indication of any possible differentiation, and with explicit stipulation that actual articular disease was not included in the concept of "psychogenic rheumatism".

The later concept of "the fibrositis syndrome"[4] did not include actual disease of joint or tendon sheath. One would gather from the description of this "syndrome" that the psychopathology was mild, and that the role of situational stress was not outstanding.

This paper is based on clinical study with psychiatric interviews on many hundreds of patients referred by physicians to arthritis clinics in the metropolitan area over a fifteen year period. Sixteen patients with typical non-articular tenderness were intensively studied with psychologic tests.

Psychalgia

Psychotic depression is frequently characterized by a chief complaint of pain; and the typical features of despair, depression, agitation, feelings of worthlessness and

suicidal impulses may be revealed only by alert observation by the physician investigating that pain. The urgent need for continuous psychiatric observation with prompt and effective treatment to prevent catastrophe through attempted suicide in



Pre-tibial tenderness.

such cases is obvious—but may be overlooked because of the emphasis on pain.

Less amenable to cure are the hallucinated pain of paranoid schizophrenia and the pain characteristic of many cases of prepsychotic hypochondriasis. (Severe hypochondriasis may also present as a caricature of psychophysiologic locomotor system disturbance as will be described later.) Acute conversion hysteria is, of course, a frequent cause of transient pain without peripheral involvement. When conversion hysteria is a factor in chronic musculoskeletal pain, psychophysiologic involvement is usually evidenced by typical areas of non-articular tenderness.

There are also more complex psychoneurotic states and personality disorders with severe masochism and "pain proneness" who have "psychogenic pain without peripheral involvement".

Psychophysiologic

Much more common, however, are the psychophysiologic disturbances. The symptoms here are pain, aching, stiffness, with discomfort on arising usually relieved by activity. Nocturnal cramps in the legs and feet frequently accompany this syndrome. Again, the cardinal physical sign is localized non-articular tenderness. This tenderness is found, in decreasing order of frequency, in the dorsal radial forearms just distal to the elbows, in the upper trapezii at the base of the neck and the shoulder strap areas, in the lateral upper arms, in the distal pretibial areas, and in the lumbar paravertebral areas. The patient cringes on moderate pressure over these areas. Such pressure does not cause pain in normal individuals or in nonaffected areas in the same patient. There is no generalized hyperesthesia and the muscles under the areas of tenderness are not palpably hard or spastic. The pathologic physiology of this tenderness is not determined. It is notable that the tenderness may be present over the anteromedial tibia where there is no underlying muscle. The distribution and extent of this tenderness may vary over a wide spectrum from one area to all possible areas. The thumb webs and the dorsa of the feet may be involved in extreme cases. Some patients will show variations in presence and degree of tenderness with variations in psychic state.

The psychiatric background of such

psychophysiologic disturbances can vary from reaction to situational stress in a relatively normal personality to severe personality disturbances, even psychosis.

In most cases both a typical precipitating life situation and a psychoneurotic predisposition are discernible.

The typical conflictual life situation is one in which the patient is trapped by duty or financial circumstances requiring that



Dorsal radial forearm—tenderness.

the patient remain with and perform for some person or group which causes frustration, psychic distress, and resentment. An oft-repeated example is a woman burdened with the care of an ill-tempered invalid husband.

The type of personality most frequently involved is one ridden with inhibitions, compulsion, and anxiety, unable to release aggressive impulses. This syndrome is rarely found in men. It is most common in middle aged women. Chronicity is the rule.

In most cases with such non-articular tenderness, and the psychic background of which that tenderness is almost always pathognomonic, there is evidence of articular disease. In many cases this may remain for years as nothing but pain on forced flexion. In most cases however bony overgrowth of margins of peripheral joints is grossly evident on physical examination. In fact over half of patients referred to arthritis clinics (which are nonexclusive) who have gross clinical evidence of osteoarthritis in peripheral joints exhibit typical nonarticular tenderness and its associated psychopathology. In contrast very few patients with rheumatoid arthritis have such nonarticular tenderness.

Medicinal therapy of this syndrome usually gives only slight relief. Steroid therapy is usually of little value. Dramatic change may result from improvement of the life situation. These patients become addicted to physiotherapy which has only a fleeting placebo effect. They also become addicted to weekly placebo injections which physicians so often prescribe (too often with the impression that the vitamins, hormones etc. which they give are of pharmaco-therapeutic rather than placebo value). Tranquillizing drugs and so-called "muscle relaxant" drugs have little effect.

Senility, chronicity, the severity of the psychopathology, or a very adverse life situation, may contribute to the inability of the patient to accept psychotherapy.

An example of the beneficial effect of change of life situation after very brief psychotherapy follows:

A woman, 49 years of age, came to the



Pressure on wrist—no tenderness.



Pressure over upper trapezius—tenderness.

clinic complaining of painful Heberden's nodes of recent origin, and of neck, shoulder and back pain with stiffness. She was also suffering from "nervousness" with tension, anxiety, and severe insomnia.

Her nephew, whom she had raised as her own son when his parents died, had left her two years previously to marry a girl of another nationality of whom the patient disapproved. This couple had two children whom the patient loved dearly. Two months before I first saw her, at the time of her initial symptoms, a misunderstanding had developed between the young mother and the patient, so that the latter was denied the privilege of visiting these beloved children.

The patient was sufficiently intelligent and pliable that she was able to recognize the importance of "making friends" again with her nephew's wife.

This she did, she was permitted to see the children and her nephew again, and there was abrupt cessation of all symptoms. The Heberden's nodes were no longer tender and ceased to enlarge. The previous pains had disappeared, as had the widespread non-articular tenderness in the characteristic areas which she had had when she first came to me. She was sleeping perfectly and her anxiety and tension had disappeared. On follow-up after six months, she was free of symptoms and of signs of musculoskeletal disease, and felt well and happy.

Such response to therapy is unfortunately rare. Most cases are interminably chronic.

Especially interminable are those cases of severe hypochondriasis with an exaggerated form of this non-articular tenderness and pain, usually without articular disease. They complain loudly, bitterly and incessantly. They are sure that they have cancer, arthritis, syphilis, or some other horrible visitation, and cannot be reassured. Their non-articular tenderness is widespread and so severe as to be diagnostic. The hands, feet and head are usually spared however. Life-long adversity and neuroticism of severe degree dating from early life are usually revealed by these patients. Any attempt at therapy is doomed to failure.

More susceptible to therapy is stenosing

tenosynovitis. This may occur alone under the stress of prolonged emotional conflict (and subside when the conflict is resolved), but is usually a concomitant of the psychophysiologic non-articular pain and tenderness syndrome, which it complicates in about 5% of cases. The cardinal symptom here is painful "trigger finger", as a nodule in the tendon catches, especially in the early hours of the day, in a constriction of the tendon sheath, usually over the palmar aspect of a third or fourth finger metacarpophalangeal joint. Either hydrocortisone injection locally or surgery will give relief.

Summary

Psychalgia, "pure psychogenic pain without peripheral involvement", relatively rare, should lead to a correct diagnosis of the causative psychosis or severe psychoneurosis. It should be clearly distinguished from pain-producing psychophysiologic phenomena in systems of the body peripheral to the brain. Such phenomena in the locomotor apparatus are exceedingly common and are characterized by pain, stiffness after rest, typical localized areas of non-articular tenderness, arthralgias, in many cases with non-rheumatoid disease of joints, nocturnal cramps in the legs and feet, and in some cases with stenosing tenosynovitis. Associated psychic symptoms are anxiety, tension, insomnia, fatigue, and depression. "Smoldering resentment" [5] is frequently an underlying factor. Precipitating life situations and disorders of personality combine to produce this syndrome.

In severe hypochondriasis the non-articular tenderness reaches a maximum of distribution and intensity (which is pathognomonic) but usually spares the hands and feet and no evidence of arthritis is usually present. Attempts at therapy in fixed hypochrondriasis are useless.

Medicinal therapy of the psychophysiologic musculoskeletal syndrome is usually of slight value. In cases accessible to psychotherapy or so fortunate as to experience a dramatic amelioration of life situation, cessation of psychic and physical symptoms and disappearance of non-articular tenderness have been noted.

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The Trademark of Quality

Most of us physicians learn to respect the competence of a particular pharmaceutical house. Their trademark becomes a sign of quality to us and I hope we don't do away with what seems to me the consumers' best guarantee of value—the identification with a particular drug house.—William C. Menninger, M.D., to Senate Subcommittee on Antitrust and Monopoly.

Cat Scratch Disease

A Review

McLEMORE BIRDSONG, M.D.
Charlottesville, Virginia

Although of uncertain etiology, cat scratch disease has been established as a disease entity. It should be considered when there is fever, lymphadenopathy, and a history of contact with a cat.

CAT SCRATCH DISEASE is a non-fatal systemic illness accompanied by fever, malaise, headache and the presence of a regional lymphadenitis. This paper will briefly review the history, etiology, signs and symptoms, and treatment of the disease.

In 1932, Dr. Lee Foshay,[1] first recognized a case of this disease resulting from the scratch of a cat. In 1945, Dr. Franklin M. Hanger and Dr. Harry M. Rose,[1] produced an antigen from the aspirated pus of a suppurative node of a case of cat scratch disease and injected it intradermally in humans. A red induration resulted in Dr. Hanger, who had had the disease, and in several of Dr. Foshay's patients. Dr. R. Debre,[2] published the first paper on the disease in 1950. Mollaret, published many papers describing the disease and found serological evidence between this condition and the lymphogranuloma venereum psittacosis viruses.[3] He transmitted the disease to a human volunteer and to monkeys. He, however, was unsuccessful in isolating a viral agent, although he believed this to be the cause. Since 1950, several reports of Cat Scratch Disease have appeared at intervals in the medical literature.[1,4,5,6,7,8,9,10,12,13,14]

The mode of inoculation is almost always by the scratch or bite of a cat, although five per cent have no history of a contact with cats. History of a prick by a thorn, a scratch as a result of splinters, a prick of a porcupine quill have all been incriminated as possible sources of infection. Studies of outbreaks in families[1,8] have shown the association with the family cat. Twenty per cent of the contact population who have had no active disease, show a positive skin test to cat scratch disease antigen.

The incubation period is variable and is recorded as widely as from 3-63 days. A known volunteer, inoculated with pus from a diseased gland, developed a swollen regional gland in eight days. It progressed to suppuration in 20 days. This would appear to be the usual time interval, but authentic recorded cases reveal longer or shorter periods from inoculation to gland suppuration.

The pathology of the lymph nodes reveals hyperplasia of the reticulo-endothelial cells and later focal granulomas displaying a layer of epithelioid cells and giant cells. Small or large areas of necrosis are usually observed. Intra and extracellular granule-like elementary bodies similar to those found in psittacosis are noted.

Systemically, the patients are not too ill. Fever occurs in over two-thirds of patients. The average temperature in children is higher, averaging 101° to 102°, although it may be higher. The adult patient's temperature is usually not as high. There are frequent remissions and recurrences in fever. Headache is a common complaint, as is las-

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situde, anorexia, and malaise. Pain is usually present in the area of the local inflamed gland, although pain and tenderness are not too severe. As the gland increases in size and reaches its height of involvement, there is usually a flare-up in the area of inoculation. The original lesion is that of an insignificant scratch. These may have a reddish wheal for a few days and then it subsides. As the disease reaches its height, the original lesion may become maculo-papular, red, and occasionally a small bleb or ulceration may be noted. If the glands do not suppurate in five to six weeks, experience has indicated little chance of the abscess draining.[15] In the oculoglandular type of the disease, the conjunctiva is fiery red and frequently an ulcerated lesion can be found on the eye. This is associated with swelling and tenderness of the regional peri-auricular node. Photophobia is a common symptom.

There is no marked alteration of the white blood cell count. This will vary from 6,000 to 9,000-10,000, as a rule, although higher counts are occasionally noted. The PMN-lymphocyte ratio is not usually altered from the normal distribution.

Collipp and Koch,[7] have reported a case of Cat Scratch Disease with an osteolytic lesion in the bone. The case was proven by history of a cat scratch, lymphadenitis and a positive skin test. The biopsy of the bone lesion was consistent with the pathology of Cat Scratch Disease.

The most alarming complication associated with the disease is an encephalitis as described by Lamm,[14] Weinstein and Meade,[16] and Paxson and McKay.[5] Encephalitis, myelitis, radiculitis, and encephalomyelitis have appeared in conjunction with Cat Scratch Disease. The symptoms and signs are severe headache, coma, convulsions, and various neurological findings, such as muscle weakness, positive Babinski, and nuchal rigidity. Pleocytosis is rare, but if it occurs, the cell count is low. Protein in the spinal fluid is found in small amounts or frequently not at all. It is important to make the correct diagnosis with these symptoms because the prognosis of Cat Scratch encephalopathy is excellent. Studies to rule out other causes of encephalitis should be obtained, and if negative, the history and course consistent with Cat Scratch Disease, plus the positive skin test will usually confirm the diagnosis. Encephalopathy associated with Cat Scratch Disease will usually occur between two and six weeks after the lymphadenitis.

Erythema nodosum is reported by Zeigler[18] occurring in Cat Scratch Disease. Others[4] have reported nondescript rashes which can be classed as the usual variety of toxic rashes.

It is not in the realm of this paper to discuss the differential diagnosis. It should suffice to say that Cat Scratch Disease should be differentiated from pyogenic adenitis, infected cyst, tularemia, tuberculosis, infectious mononucleosis, lymphogranuloma venereum, and malignant tumors of the lymph node. As a rule this is not too difficult.

Because the disease is associated with close contact with a cat, it is reasonable that the condition is seen more commonly at the time of year that cats are indoors. This has been shown and reported by Spaulding and Hennessey.[15] The peak months of occurrence in their series were between October and February. Cases do, however, occur throughout the year.

At the present time, the only diagnostic laboratory test is the intradermal skin test using an antigen prepared with the pus recovered from the necrotic node of a patient with Cat Scratch Disease. The pus is aspirated under sterile conditions and is diluted 1:5 with normal saline. This material is then heated to 60° C. for one hour on each of two consecutive days. It is then tested for sterility. In order to assure potency, one tenth (0.1 cc.) is injected intradermally in a patient known to have had Cat Scratch Disease. If the skin reaction is adequate, the antigen is ready for testing in suspected patients.

The test is performed by injecting one tenth (0.1 cc.) of the prepared antigen

intradermally, and it is read at 48 and 72 hours after the injection. There is usually an immediate wheal that recedes, and for the next 48 hours the area becomes red and indurated. A positive test should reveal a red indurated area of at least 6 mm. in diameter, and an erythematous ring of larger size. Some are over 60 mm. in width. The test fades in one to two weeks. It would appear that once the test is positive it probably remains so. One patient is reported to have a positive skin test nine years after his disease.[15] Cat Scratch antigen is not commercially available; however, most medical centers have a small amount of the antigen and will share it in return for sterile pus from an infected patient.

The etiology of the disease is uncertain. Almost all workers in the field believe it is caused by a virus and it probably is a viral agent from the psittacosis venereum lymphogranuloma group. At the present time, no virus or bacterial agent has been proven. Dodd, Graber, and Anderson[11] have presented evidence of a viral type of hemagglutinatin which is inhibited by an antibody found in some cases of Cat Scratch Disease. Recently, Boyd and Craig,[20] reported the recovering of an acid fast bacilli in eight cases of Cat Scratch Disease. These organisms were cultured from material aspirated from necrotic nodes. On further study, the organisms were found not to be tuberculous but of the chromogene group, the photochrome and skotochrome type. These organisms were injected into animals and the authors report evidence of slight disease in mice but no evidence of disease when guinea pigs or chickens were the laboratory animals. More laboratory and clinical investigations are necessary to confirm these interesting observations before we can fully accept the chromogenes as the etiological agent of Cat Scratch Disease.

It would appear that aspiration of a supporting node is of value, as numerous reports show dramatic improvement after such treatment. It is advocated by a few that open drainage be performed. However, this is not well received by most authorities, as draining sinuses will frequently develop. Excision of the entire node is occasionally advised, and in some cases has proven most beneficial. It would appear that adequate aspiration or complete removal of the node will greatly shorten the normal course of Cat Scratch Disease. The treatment is otherwise entirely symptomatic.

Increased awareness of the disease by physicians has resulted in a marked increase in the diagnosis, and it is now well documented that Cat Scratch Disease is not a rare entity.

Summary

1. The history, signs and symptoms, and diagnosis of Cat Scratch Disease are presented.
2. The method of making the skin test antigen is discussed.
3. Treatment is briefly outlined.

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Freedom in the Field of Health Care

Those who advocate more inroads upon our liberty fail to recognize that it is not a mere coincidence that the life span of Americans today is longer than that of the people of any other major nation. It is no accident that there are more than 3,000,000 Americans alive today who would be dead if our national death rate had not been reduced through improved diagnosis and care. These facts are not due to climate, to food, or to public health measures. They are due to the dynamism, the spirit, and the freedom of choice existing today within the field of health care. The three fundamental elements of medicine in this country—the physician, the pharmacist, and the pharmaceutical manufacturer — have worked together in a climate invigorated by the spirit of freedom, and together they have provided medical care unsurpassed anywhere in the world.—Francis C. Brown, President, Schering Corporation, to National Association of Retail Druggists, Oct. 5, 1961.

Maternity Clinic Services in a Small Community Hospital

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Warrenton, Virginia

Although only two years old, the maternity clinic of the Fauquier Hospital is a going concern and may well be an inspiration to other communities with similar problems.

IN JANUARY, 1960, an obstetrical-gynecological service at the Fauquier Hospital was established for medically indigent county patients. More than a year later the service has demonstrated a steady growth, with the physicians and the community they serve satisfied as to the purpose and methods used by the clinic.

The Fauquier Hospital, in Warrenton, is a 63 bed facility, serving a primarily agricultural community, with a population of about 23,000. There are a number of low income families in the area who furnish much of the farm and other non-skilled labor. There are about a dozen active physicians in the county.

There had been for a number of years, a problem with gravid patients who frequently presented themselves in labor at the hospital emergency room for delivery, without having had any prenatal care. Prenatal care for the medically indigent was available from individual physicians, most of the doctors preferring a non-paying patient to the risk of delivering a previously unattended or unsupervised pregnancy. Many patients, however, were reluctant to seek care they were unable to pay for; others failed to seek advice for reasons known only to themselves. Those seeking prenatal care frequently shifted from physician to physician during the same pregnancy, making continuity of care impossible. Another problem was the high illegitimacy rate in this group, creating a social aspect in the approach to the patients, beyond normal care. Public welfare and health department workers expressed frustration with those persons, who frequently required aid in other categories.

During the latter part of 1959 several interested lay persons joined with the county physicians to offer a comprehensive program of medical care in obstetrics and gynecology for women of medically indigent status. The purpose of the clinic was expressed in the adopted by-laws as providing "comprehensive medical care in the fields of gynecology and obstetrics to women of Fauquier County who are unable to pay for private medical care, and if so desired by the individual patient, make available a program of family planning."

It was also decided that an effort would be made to operate the clinic independently with volunteer workers and contributions. Family planning advice, as noted above, was to be offered to these patients, similar to a good medical program that might be offered to a private patient, but acceptance of this advice was not to be the criterion for clinic admission. Organization of the clinic was to rest with an advisory board composed of colored and white lay workers, members of the clergy, members from the hospital medical staff, and representatives from the county welfare and health departments.

Actual clinic organization was to be supervised by a professional group, with a rotating chairman selected from the medical staff. The hospital board has a representative on the clinic board, but otherwise there is no direction from the hospital administration. The hospital administrator frequently sits in on clinic meetings, as an interested but non-official observer. The organization has been most fortunate in having capable and interested welfare and public health department personnel, who are an integral part of the organization. Patients may be referred to the clinic by the welfare department, public health department, or by individual physicians. A reservation is made that any potential patient whom a physician feels can and should pay for private care may be asked to explain more fully her economic status to justify continued clinic care. (This operational procedure might be impractical in a larger community, but we have found it a highly practical method of controlling ineligible patients.) Patients do not have to be completely indigent to qualify for the clinic, and a sliding scale has been established to determine eligibility, the scale being based on the number in the family, and the total family income. The maximum income permitted is in excess of $300 per month per family. The patient is asked to pay $1.50 each visit, and although this amount is not required, it is strongly urged that the patient try to pay this much. This charge includes all laboratory studies (which are done at cost basis under the direction of the hospital pathologist and radiologist), and all medications associated with the patient's pregnancy. Polio vaccination, for instance is given when the patient has not been previously inoculated. A prenatal chart is kept and remains in the hospital, immediately available when the patient presents herself in labor. Professional coverage is furnished by the county physicians, who rotate on call for the clinic. The physicians do not charge for their services, neither clinic visits nor delivery, including surgery. Several physicians not taking obstetrical patients in their private practice take turn on clinic duty. Deliveries are done by the same men from the emergency room call list of the hospital. Public health nurses offer postpartum care to the patients after discharge from the hospital, referring the patients back to the clinic if a visit is indicated before the routine six week check. The staff is now discussing the advisability of doing cervical Pap smears as part of the postpartum routine, and it seems likely that this procedure will be adopted.

Volunteer workers do the clerical work required and in addition make the initial approach to the patient in regard to interest in family planning. Patients expressing interest in advice are talked to by both a trained volunteer worker and a physician.

The first clinic opened on a monthly basis, in January, 1960, the clinic having two patients. No particular advertising was done except word-of-mouth. The clinic now operates twice a month, at capacity, and increased frequency seems likely. For the period January 1, 1961, through June 9, 1961, the following statistics were noted:

Clinics held 11
Patients registered 62
Carried from 1960 10
New since January 1 52
White patients 23
20 married with 86 children
3 single with 0 children

Colored patients 39
23 married with 89 children
16 single with 41 children

New deliveries 27 (100% live births)
Total number of children 243

Tubal ligations 12
Clinic visits
62 patients have made 137 visits
50 visits: no fee paid
87 visits: $156.65 received
Gynecological consultation: 1
Menopausal consultation: 1
Total patients: January, 1960, through June 9, 1961: 118

Two patients required hospitalization during the prenatal period: one for a severe anemia, and the other for toxemia. A cesarean was done for disproportion on a 14-year-old unmarried primipara. Another patient had her 5th section, and had a tubal ligation at the same time.

The interest in the service provided by the Maternity Clinic to the county has been considerable. Remodeling of a shop room in the basement of the hospital has now made available a clinic suite devoted to out-patient activities. Originally the patients were seen in the emergency room, but the hazard of a clinic in operation conflicting with an emergency was a constant threat to procedure. Funds for the clinic room have come from private contributions, without any aid from government (local or national) funds. This room, in turn, will not be restricted to maternity clinic activities but will be available to other clinics as they may be organized. The Maternity Clinic of Fauquier Hospital has met a problem which was facing the physicians, the welfare and public health departments and the community as a whole. Systematized care in this category is now being given to these patients who were receiving spotty care at best. The physicians have found a system for equalizing the load of caring for these patients, and the hospital has a means of gauging the number of no-pay or part-pay patients to expect and can show this loss to the community. Administratively, the hospital has given full cooperation to our efforts. A special ward room rate for these patients has been arranged, on which the patient is asked to start a deposit at the time of the first clinic visit. If the delivery is uneventful, mother and child are discharged at twenty-four hours, the public health department is notified, and one of their nurses makes a call on the patient shortly after the patient has arrived home. The purpose of this plan is to help the hospital collect a minimal bill, rather than having losses accumulate on a three to five day hospitalization, as in the original situation. The problem of illegitimacy is being measured for the entire community to evaluate, and a solution is being offered to the patients who are involved.

There has been no attempt made to force contraceptive advice on clinic patients but there is a feeling among the workers that a majority of the patients, married and unmarried, are interested in family planning and preventing unwanted pregnancies, and want contraceptive advice. The approach to the patients in this aspect has not been formulated in any set pattern, for each patient appears to be a problem within herself and information is best received on an individualized basis. Organized group discussion has not been tried, although the patients apparently discuss family problems among themselves while waiting to be seen in clinic. The result of this part of the clinic is not yet apparent; the program will, of course, have to be followed, evaluating patient response to the different methods of contraception, including surgical, which are offered. It has been a surprise to note the keen interest in voluntary surgical birth control from the patients, both married and unmarried. There is apparent considerable divergence of opinion in the State on compulsory sterilization for unwed mothers, after repeated pregnancies. Our limited experience suggests that perhaps the answer lies not in any compulsory action but rather, placing tubal ligation more freely among the means of contraception offered to individuals. All proposed tubal ligations from the clinic are reviewed by staff members; the procedure is the same as for private patients: consultations are required and the proposal must conform to standards set up by the staff regulations as recommended by the obstetrical committee.

The role of the county ministers to clinic patients, particularly to the unmarried mothers, also has not been fully explored, but is under discussion. The role of all social workers in aiding these patients has been kept in mind and further investigation is definitely indicated.

The problems appraised and the solution that has been attempted have been not only for our own enlightenment and benefit but also for others. At this time, in one of the counties adjacent to Fauquier there is considerable interest from the physicians and welfare-health department workers in a program similar to the one here. We feel the Fauquier group has piloted a worthwhile program and will have results to offer in many aspects of community health and social welfare.

Since the above article was accepted for publication, a clinic operating along similar lines of organization as described has opened in The Warren Memorial Hospital, Front Royal.

Fauquier Hospital
Warrenton, Virginia

New Books

W. B. Saunders Company features the following recent books in their full-page advertisement appearing elsewhere in this issue:

Kline and Lehmann—HANDBOOK OF PSYCHIATRIC TREATMENT IN MEDICAL PRACTICE

Tells the non-specialist which psychiatric patients he should and should not treat—why he should treat them—and exactly how to manage these patients.

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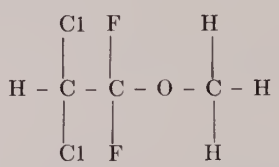
Preliminary Clinical Experiences with Methoxyflurane

JULIUS J. SNYDER, M.D.
Norfolk, Virginia

This anesthetic agent appears to satisfy the need for a potent, non-explosive inhalation anaesthetic.

THE NEED for a potent, non-explosive, inhalation anesthetic agent that can be administered conveniently has long been recognized. With the recent development of methoxyflurane, these requirements appeared to be somewhat satisfied. This led to the preliminary evaluation of the drug on a clinical basis.

Artusio and Van Poznak investigated a series of fluorinated ethers and the compound 2,2-dichloro-1,1-difluoroethyl methyl ether (methoxyflurane) was subjected to trial in man.[1] The drug has the following structural formula:



It will not explode in any concentration at room temperature or under those conditions where the agent is ordinarily used clinically. The concentration for maintenance of anesthesia is less than 2%. Although its boiling point is 104.8 C., methoxyflurane vaporizes readily and about twelve times as rapidly as does water on an equal-weight basis even though their vapor pressures and boiling points are similar. It is not affected by carbon dioxide absorbers.

During the present experience with methoxyflurane, patients have been premedicated in the usual manner and ranged in ages from two to eighty-four years. Ordinarily, induction of anesthesia has been rapidly accomplished with thiopental and maintained with methoxyflurane in a 50-50 mixture of nitrous oxide and oxygen with a total gas flow of four liters per minute. After the establishment of anesthesia, a dial setting of 2 on the Ohio Heidbrink ether vaporizer gives a concentration of approximately 0.5 volumes per cent of methoxyflurane, maintaining an anesthetic level of plane 1. Where intubation of the trachea is indicated, this has been carried out in conjunction with the use of succinylcholine, or non-depolarizing muscle relaxants. It has been reported[2] that extubation has not been accompanied by laryngeal spasm and this has been our own experience.

Methoxyflurane has been used in operative procedures lasting from a few minutes to seven hours and in a variety of operations (Table 1). In most instances only a light level of anesthesia was attempted and succinylcholine administered where muscle relaxa-

TABLE 1.

Laparotomy	18
Craniotomy	3
Perineorrhaphy	4
Orthopedic Surgery	7
Thoracotomy	2
Hemorrhoidectomy	8
Thyroidectomy	5
Tonsillectomy	2
Plastic surgery	18
Superficial surgery	6
Vein ligation	1
Renal surgery	1
Breast surgery	10
D & C	3
TOTAL	88

tion was required. With this technic, blood pressure variations were not experienced. Also with this method, the respiratory pattern was satisfactory and ventilation was adequate. The respiratory system is not stimulated.[3] The cardiac rate has been stable and variations of importance have not been noted. However, in clinical use, methoxyflurane resembles diethyl ether in its effects on the circulatory system.[4] Epinephrine should be used with caution in the presence of methoxyflurane until further experience has been gained.

With the use of a light plane of methoxyflurane anesthesia, recovery is quite rapid and uneventful. Post-anesthetic delirium has not been seen. All patients in this study were interviewed post-operatively and none expressed an objection to the agent. There were no comments of dislike for the odor or complaints of headache. The incidence of nausea in these patients has been low and was noted in only rare instances. Prolonged analgesia and amnesia occur so that the need for post-operative narcotic analgesics seems to be reduced.[5]

Summary

The recently developed inhalational anesthetic agent methoxyflurane, has been administered to eighty-eight patients for a variety of surgical procedures. Our initial experience with the drug in light planes of anesthesia has been satisfactory and its acceptance has been favorable. Further use of the agent is warranted.

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The methoxyflurane used in this study was supplied as Penthrane® by Norman C. Wheeler, M.D., Abbott Laboratories, Chicago.

The clinical material used in this study was supplied by the Anesthesia Department, Norfolk General Hospital, Norfolk, Virginia.

208 Medical Tower
Norfolk, Virginia

The Best, Not the Cheapest, Drug

The trade-name behind which a firm places its reputation and its assurance of quality and purity allows me to make my selections quickly and with confidence so I can get the best response with the chosen medications for my patients' needs. The essence of medical practice is the response of the physician to the individual needs of the individual patients. Professional judgment should not necessarily be qualified on the basis of what is cheapest.—Paul D. Foster, M.D., President, California Medical Association Council, in *California Pharmacy*, Oct. 1961.

The Long-Term Medical Follow-Up

CHARLES M. WYLIE, M.D.
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Baltimore, Maryland

Follow-up of a large group of patients after a lapse of five years was attempted. The difficulties encountered and the results obtained are described.

ALL TYPES OF RESEARCH are possible, it is said, but some types are more possible than others. Medical research is no exception to this saying, with the "more possible" studies predominant in the literaature. The classical pattern of medical studies has been to describe the course of patients while in hospital and to ignore what happens after discharge. In recent years, however, more studies have described the status of patients some years after hospital care.

Such follow-up studies are difficult even if well-planned from the start. Problems increase, however, when the decision is made late to follow-up the study group. Studies are all the more difficult when there has been no continuous plan to record changes, such as in residence or death status. When study groups are large, investigators may feel so overwhelmed by the problem that they abandon their follow-up plans.

However, the problem of late follow-up is less overwhelming than it first appears. The follow-up may be divided into two phases: (1) discovering where each individual is currently residing, and whether or not he has died; (2) obtaining new information from each individual once he has been located. This paper will report the results of attempting to follow-up, after a lapse of five years, 3,044 persons who were part of the Baltimore Chronic Illness Survey in 1954.[1] The results include some statistics, which are never popular with physicians. There are suspicions that statistics convert "a half-belief needing a pinch of salt" into a scientific figure having but a grain of truth. Nevertheless, properly used statistics can reinforce well-considered opinions, and this paper includes both.

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Background

As part of a study to determine the prevalence of chronic illness in a representative sample of the Baltimore population, the Commission on Chronic Illness conducted a multiple screening clinic in 1954.[2] Participants in this clinic were given a series of screening tests, the results of which were mailed to their family physicians. Participants with abnormal results were urged to visit their physicians for diagnosis and treatment. Of 6,967 persons invited for screening, 2,023 actually attended. Five years after the clinic visit, we attempted to contact all 2,023 persons who took the tests—the attenders. We also followed-up an additional 1,021 persons, who formed a random sample of those who were invited but did not attend—the non-attenders.

Our three main purposes in follow-up were:

1. To estimate how many persons remained in Baltimore who might participate in future studies to evaluate screening tests.
2. To obtain their frequency of visiting

physicians and of hospitalization in the five years following screening.[3]

3. To determine the number and causes of deaths in attenders and non-attenders.[3]

Four steps were used to obtain current information on the study population:

a. We consulted the latest telephone and residential directories to obtain current address and telephone numbers for each person.
b. Using these newer addresses, or the 1954 addresses when no new one was available, we mailed a short questionnaire to each individual, enclosing a stamped-addressed envelope for its return.
c. When the questionnaire had not been returned within a month, we contacted those who had telephones and thus completed the questionnaires.
d. When the questionnaire was not returned and we had no telephone contact, we consulted local death certificate files to find out if the individual had died in Maryland during the five years.

Results of the Follow-Up

Attenders moved less frequently than non-attenders, 46 per cent of the former having the same addresses five years after screening as compared with 35 per cent of non-attenders. In the course of the follow-up, the new addresses were found for 38 per cent of attenders and 28 per cent of non-attenders. Five per cent and four per cent respectively had died in Maryland, while the remainder were in new, unknown addresses.

Table 1 shows that fewer people between 35 and 49 years of age had changed residence than in younger and older age groups. There was no consistent difference between men and women, but non-whites moved much more frequently than whites. These results indicate that the group in Baltimore most easy to contact after five years consisted of whites between 35 and 49 years.

TABLE 1

Residential Status in 1959 of Attenders and Non-attenders in a 1954 Clinic, by Age, Sex, and Race

Age, Sex, and Race Groups		Total	Residential Status			
			Same Address as 1954	Moved, 1959 Address Known	Moved, 1959 Address Unknown	Died
			Percent Figures			
All Ages*	Attenders	2,023	46	38	11	5
	Non-attenders	1,021	35	28	33	4
Under 35	Attenders	722	35	50	15	1
	Non-attenders	394	23	32	44	1
35-49	Attenders	743	54	34	10	2
	Non-attenders	312	43	30	26	2
50+	Attenders	542	50	28	9	13
	Non-attenders	310	41	21	26	12
Attenders†	Male	923	44	39	11	6
	Female	1,097	48	37	12	4
Non-attenders	Male	469	38	28	29	6
	Female	552	32	28	37	3
Attenders‡	White	1,570	48	39	9	5
	Nonwhite	433	39	37	20	5
Non-attenders‡	White	761	39	28	29	5
	Nonwhite	258	23	30	45	3

*Includes those of unknown age.
†Excludes 3 of unknown sex.
‡Excludes those of unknown race.

Questionnaire Response

A higher percentage of those attending the clinic returned questionnaires, 54 per cent as compared with 27 per cent of non-attenders. For an additional 27 per cent and 34 per cent respectively the questionnaires were filled in by telephone. Thus, 15 per cent of attenders and 39 per cent of non-attenders gave no response to the questionnaire.

Table 2 shows that age had little effect on the proportion mailing back questionnaires. However, we were much more successful in contacting by telephone persons who were 35 years and older, than those under 35.

There was no significant difference between the proportion of each sex returning questionnaires or contacted by telephone. However, when race was considered, significantly more whites than nonwhites mailed back questionnaires. Our findings thus suggest that the group most cooperative in returning mailed questionnaires is white, and unaffected by sex or age. When the questionnaire is followed by telephone calls, significantly more persons 35 years and older can be contacted.

TABLE 2

QUESTIONNAIRE RESPONSE FROM ATTENDERS AND NON-ATTENDERS IN A SCREENING CLINIC, BY AGE, SEX, AND RACE

AGE, SEX, AND RACE GROUPS		Total Receiving Questionnaire	QUESTIONNAIRE RESPONSE		
			Returned by Mail	Filled in by Phone	No Questionnaire Returned
			PERCENT FIGURES		
All Ages*	Attenders	1,794	59	27	15
	Non-attenders	684	27	34	39
Under 35	Attenders	617	60	22	18
	Non-attenders	251	27	21	52
35-49	Attenders	664	58	29	13
	Non-attenders	327	17	28	56
50+	Attenders	494	58	29	13
	Non-attenders	234	26	38	37
Attenders†	Male	819	60	27	14
	Female	960	58	27	16
Non-attenders	Male	334	26	35	29
	Female	350	28	32	40
Attenders‡	White	1,420	62	26	12
	Nonwhite	343	44	30	26
Non-attenders‡	White	542	30	33	37
	Nonwhite	142	16	36	49

*Includes those of unknown age.
†Excludes 15 of unknown sex.
‡Excludes those of unknown race.

Discussion and Conclusions

The physician desiring to contact a study population after a lapse of some years may choose one of several alternatives. Clearly his simplest course will be to arrange for medical social workers or nurses to visit the patients. However, when the study involves hundreds of persons, individual visits will be costly and time-consuming.

A simpler, cheaper, and more rapid alternative is to contact the patients by mail. However, most large cities in the United States resemble Baltimore in having a considerable movement of the population. From this study, we estimate that some 50 to 70 per cent will move from their former residences in five years. These proportions will be higher if the group is young or nonwhite.

Nevertheless, the greater proportion of movers will remain in the city or its suburbs, and will be found in current address and

telephone directories. Furthermore, the post office forwards first class mail for two years after the move, providing the forwarding address is known. From our study results, we would judge that between 10 and 40 per cent will not be reached by mail after five years.

It is likely that less than 60 per cent of those contacted by mail will return questionnaires, with whites responding better than non-whites. This response can be improved by follow-up telephone calls, or by second and third mailings of the questionnaire (which were not carried out in this study). Groups who have participated in a health program may be expected to respond significantly better than control groups who did not participate. In this study, the percentage of attenders returning the questionnaire was double that of non-attenders.

A study which depends entirely on mailed questionnaires for its results may produce biased findings. Persons who move or who fail to answer questionnaire differ in a number of respects, probably including their health problems, from those who respond. To overcome this bias, at least a random sample of non-respondents should be followed-up intensively by home visits. However, when large numbers of patients are studied, mailed questionnaires do reduce the number of home visits, thus lowering the total cost of the study.

Summary

To contact 2,023 attenders and 1,021 non-attenders in the Baltimore multiple screening clinic after a lapse of five years, we obtained current addresses from local directories, then we mailed a short questionnaire, and telephoned those who did not return questionnaires. Significantly more attenders than non-attenders remained in their old addresses. Whites and those between 35 and 49 years had changed residence less than non-whites and those in younger and older age groups.

The proportion of attenders who mailed back questionnaires was twice that of non-attenders, with a significantly better response from whites. When followed by telephone calls and by home visiting of a sample of non-respondents, the mail questionnaire can considerably reduce the cost of following-up large groups of patients, without necessarily reducing the accuracy of the findings.

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Premature Labor, Delivery and the Premature Infant

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The premature infant demands special consideration during labor and after delivery.

WHEN EFFORTS at prophylaxis fail to prevent the onset of premature labor, then proper obstetrical care, proper analgesia and anesthesia, and immediate attention to the newborn premature infant will greatly reduce the perinatal loss from prematurity. If it is clear from the dilatation of the cervix that labor will inevitably succeed, an enema should be given and the patient prepared for delivery, for nothing will be gained by attempt at procrastination and the possible development of uterine inertia. It is important that the mother understand the infant is expected to be premature and because of this there are certain precautions that are necessary in order to give it the most favorable chance for survival. I have never known a mother who has been uncooperative when she was told that certain precautions in analgesia and anesthesia were of necessity being done to protect her baby and give it the best possible chance in the immediate neonatal period. It is of even greater importance with the management of the patient in premature labor that her apprehension be allayed and that she be given confidence in the situation. During her labor she should be attended at all times by the obstetrical nursing staff and by her obstetrician, especially so during the latter portion of the first stage of labor. It is important for her to realize the necessity for relaxation with the contractions, in order to minimize the amount of soft tissue resistance, to progression of the fetal head. It is important for her to understand why we want her to have oxygen during her labor. It is important for her to know that during the actual delivery she will be awake, but she will be given anesthesia with pudendal block.

She should also be told that an episiotomy may be necessary in order to protect the fetal head from injury. All of these things are important in the proper management of the patient in premature labor.

Analgesic drugs should be used as sparingly as possible. Morphine and its derivatives are poison to the premature infant. Even relatively small doses will depress respiration if delivery occurs as much as six or seven hours afterward. Demerol should be used with care and should only be given in very small doses so that there is no cumulative affect on the newborn. It is important, also, to take care in giving phenothiazine derivatives since these drugs accentuate the narcotics. Some of the newer synthetic drugs that are recommended for use in labor have less central nervous system depressant action and are reportedly less depressing to the newborn infant. Barbiturates are very depressing to the premature infant and it is very important if these drugs are used, that they be used with great care, since frequently a

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premature infant will be born sooner than is expected. A therapeutic dose of a barbiturate may greatly depress respiration in the newborn premature infant.

It is most important that the attendant at the labor check fetal heart tones frequently as well as other vital signs. Careful attention should be paid to evidence of persistent bradycardia and any evidence of passage of meconium. Both of these signs are grave evidence of fetal distress. Should these signs occur, delivery should be affected immediately by the most convenient route. Of course, it goes without saying that during labor the mother should have no solid foods and her intake should be limited to liquids and cracked ice. Her fluid level should be maintained by intravenous fluids if the length of the labor so warrants. In addition to the hydration value of intravenous fluids and the nutritive value to the mother in preventing metabolic upset, there is new research evidence that glucose given to the mother will provide important brain cell nutrition so that the vital centers will be able to utilize oxygen more efficiently and effectively. The giving of intravenous glucose to the mother in premature labor is advocated from both of these standpoints.

Most important is the oxygenation of the fetus in utero and at the time of birth. This can be greatly increased by administering 100% oxygen to the mother during the latter stages of labor and at delivery. It has been shown, without question, that oxygen, administered to the mother in the latter stages of labor and at delivery, results in improved oxygenation in the newborn. It is especially important that this be carried out in the event of premature labor. Of special note is the mother with a premature breech in labor. These patients should be followed even more closely since, should the membranes rupture, prolapse of the cord is a real danger. The management of the premature breech is fraught with great anxiety by the obstetrician for he knows the dangers involved in this delivery. Here, the smallest dilating wedge delivers first and the cervix is then incompletely dilated and may clamp down about the neck of the infant and thus cause compression of the cord and secondary anoxia in the infant.

For delivery, itself, because of the uncertain amount of asphyxia that may be present, regional anesthesia is generally considered to be superior to general anesthesia. In our particular hospital we have always advocated and stressed the convenience, reliability and relative comfort of pudendal block anesthesia. Other anesthetic methods of this type that are used frequently are saddle block, low spinal and caudal anesthesia, all of which are useful. However, it should be noted that with all the latter methods it is usually accepted that an anesthesiologist be present to supervise and manage the actual anesthesia. With the pudendal block technique the obstetrician himself acts as the anesthesiologist and if an anesthetist is present, she can administer oxygen during the delivery and be ready should complications arise and inhalation anesthesia be necessary. In addition, she may also administer concomitant nitrous oxide oxygen for intermittent analgesia at the same time. This method of anesthesia is most desirable in the premature infant and will result in the least amount of respiratory depression. If delivery becomes rapidly imminent inhalation anesthesia must be used and if so, the least potent agent is best. Nitrous oxide or ethylene and oxygen in a 3 to 1 mixture are examples of such anesthetic agents. Other agents such as cyclopropane and ether are more potent and are very likely to depress the infant, especially so if used for periods beyond three to five minutes. In the specific management of toxemia of pregnancy pudendal block anesthesia is the anesthetic of choice. For breech delivery the use of pudendal block anesthesia, combined with the use of cyclopropane inhalation anesthesia for delivery of the after-coming head, has been very effectual. The fact that with cyclopropane the patient can be rapidly induced, means that the anesthetic agent only need be used for a very

short period and can give enough relaxation to deliver the after-coming head without trauma.

The choice of anesthesia for patients who require Cesarean section depends on the urgency of the delivery. For elective Cesarean section, regional anesthesia is strongly recommended and this may be local infiltration or spinal. For emergency situations where speed is important such as in prolapsed cord, placenta previa and abruptio placenta, a quick inhalation technique such as induction with cyclopropane is very advantageous. At our hospital we do not have an anesthesiologist and most of our Cesarean sections have been done under cyclopropane and nitrous oxide and oxygen anesthesia. It is very unusual for the cyclopropane to be administered longer than four to five minutes. Frequently, the infant is delivered in less than three minutes. It should be stressed that cyclopropane is a very effective anesthetic agent and is only depressing to the infant when it is used beyond the period of five minutes. Of course, during delivery the anesthetist will see to the blood pressure and pulse, that an infusion is started with an 18 gauge needle, and that the patient will receive oxygen during the delivery, whether she receives a general anesthetic or not. In addition, a suction machine must always be available, as well as airways and intubation instruments should this become necessary. Adequate preparation should be made for delivery of the premature infant by notification of the pediatrician and the preparation of the resuscitator and the resuscitation tray. During the actual delivery episiotomy is usually the rule in all patients where the perineum is resistant. In addition, it is important that the presenting part not be traumatized during the birth process and for this reason prophylactic forceps are usually advocated. It is especially important in the management of a breech delivery that episiotomy be used. In all prematures the head should be slowly and gently delivered, steadying the vault of the skull with the palm of the hand, rather than with the fingers. When the child has been born his oral pharynx should be gently sucked out with a soft tipped rubber ball type or a De Lee mucous extractor. The trachea should not be milked and the inside of the mouth should not be swabbed out with gauze, as this is very damaging to the lining of the cavity of the mouth. The infant should not be put on the mother's abdomen, but should be allowed to receive all the blood from the mother that it is going to receive naturally. This is of very great importance to the infant since it is premature and it needs all the oxygen carrying capacity that it can get. Most important, too, is that the cord should be allowed to drain until pulsations cease. The cord should not be milked, as frequently the very delicate cardiovascular tree of the premature may be overloaded. It is not felt that the normal blood flow will overload the infant's cardiovascular tree. When the cord has stopped pulsating it should be doubly clamped and cut.

The infant from the time of birth is held head down so that amniotic fluid and other debris aspirated in the birth process will drain downward so that it can be aspirated prior to the infant's first gasp. The only exception to the handling in this manner is in the instance of cerebral hemorrhage, in which case holding the head down might cause increased damage to the brain. In the usual normal premature the head down position is maintained and the infant is transferred to a Krieselman resuscitator where it is covered and kept warm and its nasal passages and oral pharynx cleared of all mucus fluids. After its airway is established, it is transferred to the nursery.

Since the obstetrician is the first individual to encounter the premature, it is important that we know what the premature is and what it looks like. First, weight is the only generally accepted criteria of prematurity and it is universally accepted that an infant that weighs 2500 grams or less is premature. The length is usually less than 47 cm. There is very little subcutaneous fat

and this gives the infant the characteristic appearance which at first makes the infant's fingers and toes appear unusually long. The skin, as a result, has a red color and it feels thin and is easily wrinkled. Lanugo hairs are present. The vernix caseosa is very scant or absent, since the glands in the skin that usually produce the sebaceous material are still immature. The skull bones are very thin and this is why there is danger of injury to the brain. The size of the head is relatively larger than the body as compared to the term infant and this is why the premature breech delivery is so hazardous. The testicles are undescended, the labia minora are exposed and project, apparently because the labia majora are not fully developed. Urine secretion is scant, there is poor muscle development with the possibility of resultant hernias of various types. The ears are soft and flabby because of the soft cartilage. The ossification centers are not usually seen by x-ray. The nails have not grown as far as the fingertips. These, in general then, are the characteristics of the premature infant.

In the delivery room the most important aspect of the delivery for the infant is the proper oxygenation of the mother while she is on the table. This, more than any other fact, is important in the reduction of perinatal mortality for the premature infant. It should be stressed again that adequate oxygenation on the delivery table is of utmost importance and will aid the newborn premature in respiration, even if nothing else can be done.

The Apgar scoring system is a clinical method for evaluation of the infant in the delivery room immediately after birth. Its use in controlled studies has shown that the neonatal death rate is inversely proportional to the score of the infant one minute after complete birth. The five signs that are considered are heart rate, respiration, muscle tone, reflex irritability and color. Each of these signs is given a value from zero to two, so that an infant born in perfect condition is considered to have an Apgar rating of ten. Severely depressed infants are rated from zero to three. Those that have scores of three to six are considered moderately depressed. Infants with scores of seven to ten are generally considered to be in good condition. Other methods that are used in the evaluation of the premature are the Silverman score which is a method of evaluating signs of respiratory retraction. This scoring method is just the reverse of the Apgar system, in that a high score means poor respiration in an infant, and a low score means a more normal respiration.

In general, the Apgar rating is the most clinically efficient and effective and of the most value. This latter method is the one used at our hospital.

Resuscitation Procedures in the Delivery Room

In general, certain basic requirements are essential for respirations to begin and to continue: 1. Normal respiratory centers without disease or dysfunction; 2. Intact nerve pathways; 3. Muscles of respiration that are developed enough to respond adequately; 4. Clear airways, normal alveoli; 5. A mature pulmonary capillary bed and adequate supply of oxygen; 6. A physiological exchange of gases between the pulmonary capillaries and the alveoli, and 7. A normal functioning cardiovascular system. When all these requirements are met respiration can occur and be maintained.

The majority of premature infants with Apgar ratings of 8 to 10 are considered essentially normal prematures and are usually vigorous with cry and cough. These infants require no further procedures and are transferred to the nursery for follow-up care. Infants of Apgar ratings of 3 to 7 at one minute following birth are usually considered to be mildly to moderately depressed. These infants are cyanotic and have usually not established regular respiration and may be limp. Usually the heart rate and the reflex irritability are good and sometimes a deep breath and crying can be initiated by flicking the heel or other painful stimuli.

However, dilating the anal sphincter is traumatic and may cause reflex laryngeal stridor; back slapping may cause rupture of the adrenals and anterior chest compression may cause injury or rupture of the spleen or liver. In general, stimulation should be limited to flicking of the heel and if this does not produce a good cry in 30 seconds, there is usually progressive asphyxia with a fall in heart rate. The infant plastic airway should be inserted and an oxygen mask placed over the face of the infant and oxygen supplied for an interval of one to two seconds with a pressure of 16 cm. of water. This pressure is insufficient to expand the alveoli but can force oxygen down the pharynx and trachea into the respiratory bronchioles and oxygen can be absorbed from this area. This will usually be followed by increase in the heart rate and spontaneous gasps and cries. If there is no improvement it is necessary to use the baby laryngoscope and visualize the larynx. It should be noted that intratracheal intubation is only rarely necessary. Most depressed infants with Apgar ratings below 6 will respond to conservative suction, airway and oxygen administration. When these measures fail to produce results then intratracheal intubation under direct laryngoscopy is indicated.

Before every delivery each piece of apparatus is carefully checked, particularly the resuscitation tray and the Krieselman resuscitator. The laryngoscope light bulb and batteries are checked. The pharyngeal suction catheter is checked and the airway is checked and it is seen that all the equipment is present and in good condition. Our resuscitation tray consists of a pharyngeal suction catheter and a De Lee suction aspirator, a plastic infant pharyngeal airway, a laryngoscope with an infant blade for prematures, a Cole #12 plastic intratracheal tube and a stylet. The soft rubber bulb is contained in all the obstetrical packs at delivery. In addition, the Krieselman resuscitator is standard delivery room equipment and this is checked by the nurse prior to all deliveries so that it is in good working order and with a full tank of oxygen.

Mouth to mouth resuscitation should be used only when no other means is available. It is difficult to estimate the pressure and most physicians are not aware of the dangers of lung and alveolar rupture which may result. When this is necessary, a tube with a source of oxygen should be placed in the operator's mouth and the mouth to mouth breathing should be carried out after exhaling so that excessive pressure cannot be applied. The cheeks should not be distended and puffed, but only the breath in the mouth should be emptied. This is estimated to be 30 to 35 cm. of water pressure. Some common errors which occur in technique are important to be noted. One of these is intubation of the esophagus instead of the trachea; another is trauma to the pharynx, epiglottis or vocal cords; another is damage to the lungs due to excessive pressure or prolonged artificial respiration; and another error is the possibility of infection. It is generally accepted also, that another aid in resuscitation is maintenance of body heat, and this is of special importance in the premature.

Once the infant develops regular respiration, it is delivered to the nursery where it can be placed in the Isolette.

The use of drugs, no matter what type, should be delayed until ventilation of the lungs has been initiated. Indiscriminate routine administration of drugs is unphysiologic and illogical. Even in the hands of experts, the value of drugs for stimulating respiration is questionable, except for very special circumstances.

If the mother is known to have received large doses of narcotics or narcotic derivatives and the respiratory depression of the newborn infant is suspected to be the result of this overdosage, then cautious antidotal therapy may be in order. In this particular instance, Nalline or Lorphan are indicated as narcotic antagonists, and appropriate dosages should be given to the infant.

The other type of drug mentioned is the

mild cerebral and respiratory stimulant. Caffeine can be used in the presence of intoxication with barbiturates or central nervous system depressants other than narcotics. The dosage of caffeine usually used is 1/2 to 3/4 gr. intravenously. All other drugs or respiratory stimulants are to be condemned and are of no noted value. In the presence of cardiac arrest epinephrine can be used as a cardiac stimulant only after the heart has been exposed and massaged through a thoracotomy incision. Nalline, when indicated, can be used in .2 mg. dosage intravenously or Lorphan can be used in .05 dosage.

The important thing in resuscitation is establishment of an adequate airway and oxygenation of the infant when cyanosis is present. Drug stimulants are generally of very little help. In general, more harm than good is done with administering drugs.

It is important that an adequate record of time interval, methods of resuscitation and response of the infant be accurately kept so that the pediatrician will have an adequate record of what was done, how the infant responded, and what treatment was instituted. This is very important in the follow-up care of the newborn premature infant and whenever possible should be accurately recorded. From this point forward the fate of the newborn premature is in the hands of the pediatrician who is the other half of the team in the fight for improved survival of the premature.

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"Serious Abuses" in Kefauver Investigation

I can accept with reasonably good grace the fact that an elected representative of the people may feel it necessary to keep himself in the public eye. I recognize, too, that a Congressional Committee—and particularly the chairmanship of a choice committee—is a zealously sought and jealously guarded vantage point, one that permits almost unlimited range for personal interests as well as the representation of constituents and the business of the Congress. I cannot, however, passively accept abuse of these normal and reasonable practices. I firmly believe that the two-year investigation of the U.S. pharmaceutical industry by the Kefauver Committee, an investigation now entering its third year, involves serious abuses of our democratic process.—John T. Connor, President of Merck & Co., to Pharmaceutical Advertising Club.

Gram-Negative Bacteremia and Shock

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Shock may occur early in the course of gram negative bacteremia. If suspected and recognized promptly, the outcome may be favorable.

SINCE THE INTRODUCTION of antibiotic drugs, blood stream invasion by the coliform group of microorganisms has been noted with greater frequency. The increased morbidity and mortality from bacteremia due to the four common coliform organisms, Escherichia coli, Aerobacter aerogenes, Proteus vulgaris, and Pseudomonas aeruginosa has been clearly demonstrated.[1] Emphasis has been given to the fact that shock occurs commonly in bacteremia, especially when due to gram-negative bacilli, and to the fact that hypotension may not be recognized because such patients may at first have a suffused, warm, dry skin.[2]

This report consists of three selected patients who were seen at community hospitals and presented with this picture. As causes of shock other than bacteremia were considered briefly, a need for more emphasis of this problem was suggested. The patient in this report were chosen because each had shock, at least one positive blood culture and, separately, represented the basic type of problem most frequently encountered, that is, a urinary tract infection, septic abortion and a disseminated malignancy.

Case Reports

1. This 37 year old white male engineer (Fig. 1) was admitted to the Dixie Hospital on December 15, 1960, with the complaint of pain in the left flank. He had had syringomyelia for approximately eight years. In June 1960 he had a laminectomy at the Georgetown University Hospital followed by catheter drainage for a considerable time. On December 14, 1960, he developed pain in the left flank and left lower abdomen,

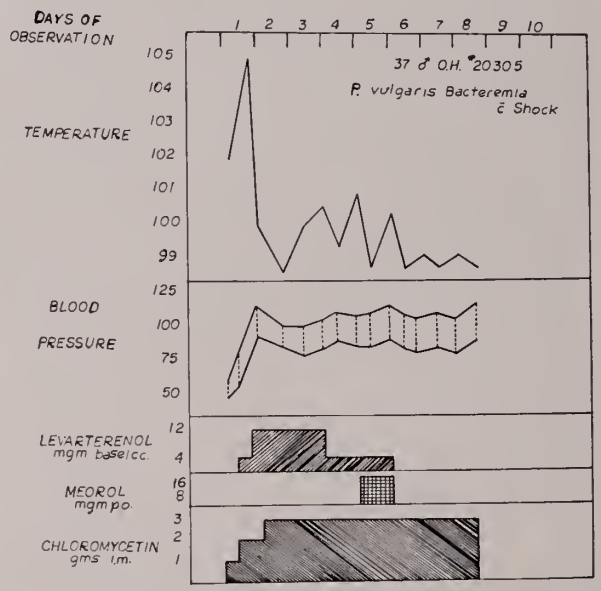


Fig. 1. Clinical course of a 37 year old male with bacterial shock due to Proteus Vulgaris bacteremia following blockage of the left ureter by a stone. The blood pressure was stabilized with Levophed (levarterenol). The patient recovered.

nausea, vomiting and on the day of admission dysuria, chills and fever. Physical examination revealed blood pressure 60/48, pulse 114, respirations 24 and temperature 102 degrees. His face was flushed, skin warm and sweaty. The abdomen was distended, tympanitic and tender over the left renal area. There was marked left costovertebral angle tenderness. Laboratory studies revealed a hemoglobin of 14.2 grams, hematocrit 41%, WBC 17,600, 22% bands, 72% polymorphonuclears and 6% lymphocytes. Urinalysis showed pH-7, albumin 4+, sugar

negative and innumerable white cells with clumps. The urea nitrogen was 11 mgm % and creatinine 1.4 mgm %. Blood and urine cultures taken on admission grew out Proteus vulgaris. Treatment consisted of intravenous fluids with Levophed (levarterenol), chloramphenicol, methylprednisolone and oxygen. His blood pressure responded immediately and was maintained at satisfactory levels with Levophed until December 18, 1960, when it was discontinued. Although an adrenal steroid was given it was felt to have had little effect. His temperature ranged from 105 degrees on the first day to 99 degrees on the sixth hospital day, after which he became afebrile. An intravenous pyelogram on December 21, 1960, showed a calculus at the terminus of the left ureter with moderate dilatation of this ureter and the left collecting system.

2. This 26 year old housewife (Fig. 2) was admitted from the emergency room to

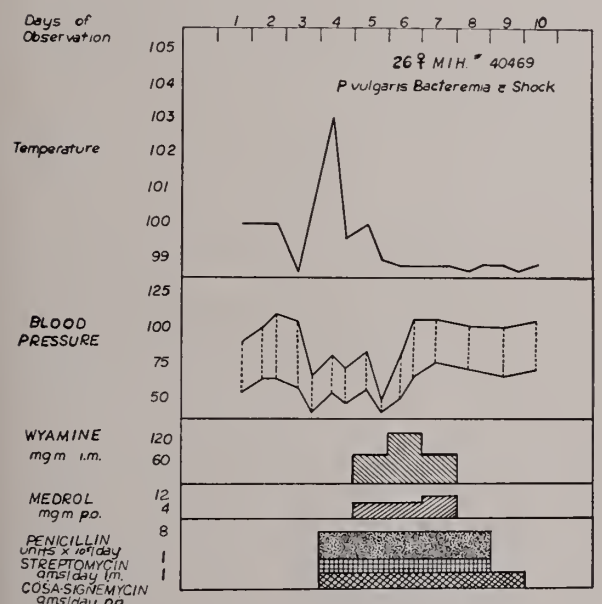


Fig. 2. Clinical course of a 26 year old female with bacterial shock due to Proteus Vulgaris. The bacteremia was associated with a septic abortion. The blood pressure responded to Wyamine (mephentermine). The patient recovered.

the Mary Immaculate Hospital on June 25, 1958, with the complaints of vaginal bleeding and lower abdominal pain. Her last menstrual period was on March 30, 1958, and on May 15, 1958, a pelvic examination and pregnancy test by her obstetrician confirmed the diagnosis of an intrauterine pregnancy. Upon arrival in the emergency room, an attempted abortion was suggested by the history obtained from her husband. Physical examination revealed a hysterical, hyperventilating, white female with a blood pressure of 90/60, pulse 120, respirations 30, and temperature 100. The skin was warm and dry. Pelvic examination revealed moderate vaginal bleeding, cervix dilated one centimeter and the presenting part in the lower portion of the cervical canal. Laboratory studies revealed a hemoglobin of 12 grams, hematocrit 38%, WBC 12,250, 79% polymorphonuclears, and 21% lymphocytes. Urinalysis showed acid reaction, specific gravity 1.015, albumin negative, sugar negative, microscopic revealed only bacteria. She received 50 mgm of Sparine i.m. in the emergency room and this was thought to be the cause of her initial hypotension. Her blood pressure was 110/70 on June 26, 1958, and no other medication had been given. However, her temperature remained elevated from the day of admission until the night of June 27, 1958. At that time she suddenly had a shaking chill followed by a sharp rise in temperature to 103 degrees. Her blood pressure then was 60/40, pulse 100, abdomen distended, tympanitic with no rebound tenderness or rigidity. Blood cultures were drawn and later grew out Proteus vulgaris. She was then given intravenous fluids, Desoxyn (methamphetamine hydrochloride), penicillin, streptomycin, Cosa-signemycin and oxygen. In spite of these measures her blood pressure remained at shock levels and on June 29, 1958, following a moderate amount of vaginal bleeding, she passed a fetus about three months size. She was then given a 500 c.c. whole blood transfusion and Travert solution intravenously. At this time she was started on Wyamine (mephentermine) and adrenal steroids. Her blood pressure gradually rose that day to 110/70. A repeat blood count revealed a hemoglobin of 12 grams, hematocrit 39%, WBC 25,300, 23% bands, 69%

polymorphonuclears, 7% lymphocytes and 1% monocytes. Although her temperature remained elevated until July 1, 1958, she improved quickly and it was possible to stop the Wyamine and adrenal steroid on that date. The antibiotics were discontinued the day before her discharge from the hospital on July 5, 1958.

3. This 54 year old white female (Fig. 3) was admitted to the Dixie Hospital on August 11, 1961 with the complaint of chills and fever. She was found to have carcinoma of the ampulla of Vater on September 2, 1959, and a cholecystogastrostomy and gastroenterostomy were performed on that date. A poor risk for radical surgery, she later received a course of Thio-tepa without marked improvement.

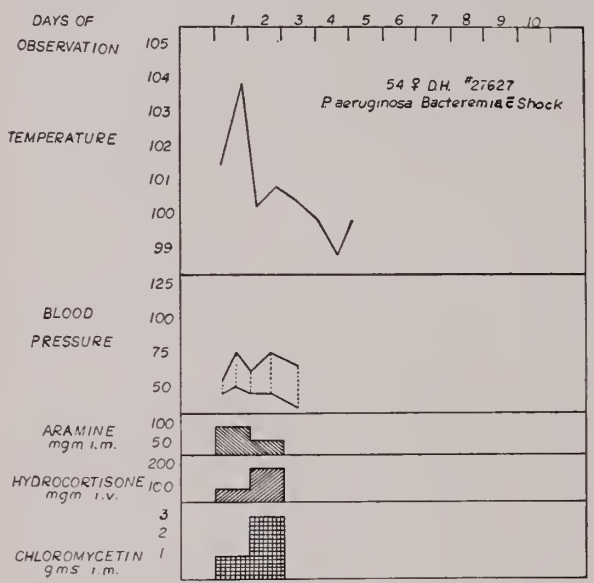


Fig. 3. Clinical course of a 54 year old female with bacterial shock due to Pseudomonas aeruginosa. The bacteremia was associated with an ascending cholangitis, multiple liver abscesses and widespread carcinoma of the pancreas. The patient died.

At 2:00 A.M. on the day of admission she suddenly developed a severe shaking chill, marked weakness and shock. Physical examination in the emergency room revealed blood pressure 50/0, pulse 130, respirations 40 and temperature 101.4 degrees. She appeared emaciated, skin was warm and not sweaty. The sclerae were icteric, chest clear and resonant and the abdomen revealed a right upper quadrant mass. Laboratory studies revealed a hemoglobin of 9.1 grams, hematocrit 27%, WBC 7,000, 60% polymorphonuclears and 40% lymphocytes. Blood cultures were drawn and later grew out Pseudomonas aeruginosa. A urine specimen could not be obtained. She was given intravenous fluids, Aramine (metaraminol), chloramphenicol, hydrocortisone and oxygen. Her temperature ranged from 101 degrees to 104 degrees during the first two hospital days, but fell during the next two days. On August 13, 1961, she developed a generalized petechial rash and on August 14, 1961, expired quietly. An autopsy revealed a widespread adenocarcinoma with an ascending cholangitis, multiple liver abscesses and petechial hemorrhages over the skin and internal organs.

Comments

The number of cases reported here is small in comparison to some reports from large medical centers. These cases, however, will serve to emphasize the growing importance of gram-negative bacteremias and the frequent association of shock, warm skin, pounding pulse and fever with such infections.

Finland[3] has presented studies to show the increased incidence of gram-negative bacteremias. Before the introduction of antibiotics, 11.7% of all bacteremic patients studied in the Boston City Hospital had an infection due to one of the coliform bacilli and in 1957, 34.5% of all bacteremic patients had a coliform bacillus. The mortality from such infections rose from 9% to 47.7% in the same time interval. Spittel, Martin and Nichols[4] in reporting 137 patients with a gram-negative bacteremia found the genitourinary tract to be the portal of entry in 60% of their cases. Urologists have reported that manipulative and operative trauma to vascular areas, often the focus of virulent gram-negative bacteria, may be associated with bacteremia and shock.[5] Others in the obstetrical field have described a high mortality rate with gram-negative bacteremia due to septic abortion.[6]

The manifestations of bacteremia due to any of the coliform group of organisms are generally the same. The patient first may have a chill, followed by fever and shock. Although some patients with bacteremic shock exhibit pallor, cold sweating and an ashen color, many appear flushed, warm and are not sweaty. Unless the blood pressure is taken shock may not be discovered. Other manifestations are purpura, jaundice, and neurologic disturbances including tremors, convulsions and coma. Various types of skin lesions have been described in Pseudomonas septicemia, namely indurated ulcerations with black necrotic centers, vesicular lesions with opalescent fluid, sharply demarcated areas of cellulitis and small, pink, round maculopapular plaques.[7] Often the manifestations will vary depending on the nature of the underlying disorder that has led to the bacteremia. Disorders of the genitourinary system such as pyelonephritis with or without renal calculi, cystitis, prostatitis, salpingitis and endometritis may be found underlying the bacteremia. Gastrointestinal problems such as cholecystitis, cholangitis, enteritis and diverticulitis may be found. In many instances leukemia, malignant lymphomas or other neoplasms may be the basic problem.

Shock as a manifestation of a gram-negative bacteremia deserves special comment. It is often the first sign of the infection and as mentioned earlier, the clinical picture is not alway typical. Other causes of shock are frequently considered first, and in some cases certain clinical findings may give the erroneous impression that factors other than bacterial ones are the cause. This has been emphasized by a recent study of 169 patients with a gram-negative bacteremia who were found to have electrocardiographic evidence of myocardial injury as well as elevations of serum glutamic oxaloacetic transaminase.[8]

The cause of shock in the gram-negative bacteremias has been attributed to an endotoxin. Rosen[9] in a recent review has pointed out that the hemodynamic effects of endotoxin in man are characterized by a decrease in venous return and cardiac filling secondary to peripheral vascular changes. Spink[10] has shown that there is an initial vasoconstriction in endotoxin shock followed by vasodilatation, a decline in blood pressure and a pooling of blood on the venous side. Although the majority agree that an endotoxin is the cause of shock there are descriptions of irreversible structural damage by hemorrhage into the adrenal glands with definite responses to intravenous hydrocortisone.[11]

Treatment of these patients (Table 1) is quite satisfactory in the majority of cases, provided the problem is recognized early. Confusion with dehydration, hemorrhagic shock, myocardial infarction, cardiac failure and adrenal failure leads to needless delay in the institution of proper treatment in many instances. Although there is no single treatment for these patients it is clear that antibacterial therapy is most important. Results of blood and other cultures with sensitivity studies will aid in determining which antibiotic to use. A variety of chemotherapeutic agents is available but no one drug is effective against all strains. A tetracycline or chloramphenicol in an oral dosage of 2 Gm. daily alone, or preferably in combination with 1 to 2 Gm. of streptomycin intramuscularly is the best combination for most strains. When a Proteus species is involved Neomycin 2 Gm. intramuscularly per day or kanamycin (Kantrex) 15 mgm. per Kg. per day may be given. Renal and eighth-nerve damage occur frequently with these drugs and they should be reserved for those infections in which no other antibiotic is effective. Penicillin in average doses is ineffective against most gram-negative bacilli, however, it is worth remembering that massive doses of pencillin on the order of

Table 1

Treatment of Gram-Negative Bacteremia with Shock

1. Antibiotics, usually multiple.
2. Infusions: glucose in water, saline, plasma, whole blood.
3. Vasopressor amines: levarterenol, metaraminol.
4. Adrenocortical steroids: hydrocortisone.
5. Oxygen.

1,600,000 units to 10,000,000 units per day may give excellent results in some cases, especially strains of Proteus.[12] Novobiocin is also effective against occasional strains of Proteus in doses of from 1 to 2 Gm. intramuscularly per day. Pseudomonas infections are considered to be as serious as Proteus infections because of the resistance of this organism to most antibiotics. Polymyxin-B (Aerosporin) has produced impressive results in doses of 0.2 to 0.5 Gm. intramuscularly per day. Because it too possesses toxicity for the kidney, this drug should be employed when others are ineffective or when the seriousness of the situation warrants it. A new antibiotic colymycin (Colistin) promises to be very useful in the treatment of Pseudomonas infections. It has shown bacteriostatic and bactericidal activity against a variety of gram-negative organisms and against Pseudomonas aeruginosa in particular. Side effects are apparently rare and reversible and it therefore appears to have an advantage over polymyxin-B. It is not effective in infections due to the Proteus group. The average adult dose is 5 mgm. per Kg. per day intramuscularly.[13]

It is quite important in these patients to maintain an adequate blood pressure and thereby insure sufficient renal blood flow to avoid acute tubular necrosis. Whole blood transfusions, plasma or Dextran may be used but usually it is necessary to rely on the vasopressor amines. Levarterenol (Levophed), metaraminol (Aramine), mephentermine (Wyamine) and methamphetamine (Vasoxyl) have been used with success. However, levarterenol or metaraminol are the most effective and are satisfactory for most cases.[14]

Adrenal steroids may be necessary when the above measures fail to bring about a response. Although it has been demonstrated that patients dying from endotoxin shock have adrenal glands that respond to ACTH as readily as those of healthy control subjects,[15] adrenal cortical steroids given over a period of a few days are not harmful and may contribute to the recovery of some patients.

With the decreased cardiac output resulting in hypoxia and subsequent cyanosis supplemental oxygen therapy is advantageous and should always be given to these patients.

In the opinion of the authors, the therapy of this condition is clear-cut and quite satisfactory. Although the mortality is high, it can be decreased by earlier consideration of the possibility of a gram-negative bacteremia as a cause of shock.

Summary

Three selected patients with a gram-negative bacteremia and shock are presented in this report to emphasize the growing importance of this problem. Emphasis is placed on the recognition of bacteremia as a cause of shock. The major aspects of treatment including antibiotics, vasopressor amines and adrenal cortical steroids are discussed.

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Emotional Problems Among Students

Emotional problems ranked third behind respiratory and skin diseases among university students, a 10-year study showed.

The study, conducted at the University of Wisconsin from 1949-59, was reported by Alfred S. Evans, M.D., and Jeffrey Warren, B.S., Madison, Wis., in the June Archives of Enviromental Health published by the American Medical Association.

Respiratory infections, not including flu, "far outnumbered" all other causes of illness recorded at the university's student clinic and infirmary.

Respiratory ills, skin eruptions, psychiatric problems and gastrointestinal upsets were termed the "Big Four" among the 10 most common diagnoses in the young adult student population.

The availability and low cost of counseling and psychiatric services might be a factor in the relative frequency of emotional problems seen at the student health facilities. Another factor is the greater likelihood of emotional problems emerging in university students than in those in a more stable working environment.

The findings point up the need for psychiatrists and dermatologists, at least on a consultant basis, in university health departments.

Mental Health . . . .

HARRY BRICK, M.D.

Use of Meprobamate in Virginia State Penitentiary—An Abstract

It is believed that in a penitentiary one may find concentrated most of the recognized psychiatric conditions encountered by the psychiatrist outside. In a prison environment, bizarre behavior, antisocial traits, aggression, hostility and inability to adjust are exhibited to a high degree, which produce many problems for institutional management. Since we believed that anxiety and tension were responsible for much of the maladjustments noted in a prison inmate, our team* at the Virginia State Penitentiary, Richmond, became interested in the alleviation of the neurotic symptoms among these men with some of the newer psychotropic agents and thus also assist in the effective management of the prisoners in general as well as the known trouble makers.

Under the physical and psychological strain of confinement, with tension and anxiety constantly mounting and eventually reaching the explosive stage, an outlet is found in irrational or sick behavior. This has been found to manifest itself in such irrational acts as intimidating others, making them feel guilty, asserting irrational claims, turning exceedingly belligerent, or possibly leading to self-destruction. We had reasoned that if the stress and anxiety could be eased through symptomatic relief with a tranquilizer, we might be able to get a more calm, less aggressive and better adjusted individual. As can be seen in the first study, we selected what can be termed as the problem inmate. For the majority of these types, the only solution was complete isolation from the rest of the prison population. We began the series of experiments with this, the worst group, because under stress of "special confinement," with its intrinsic monotony, tension and anxiety are magnified.

We realized that in the administration of drugs to a prison population and for conclusive evaluation, two criteria must be met. One is rigid control of the medication, the other is objective recording of the results through various projective techniques. We further believed that the background of the subjects to be used seemed important for better understanding and as a result, much sociological data was gathered; particularly on those in "special confinement". The layman is inclined to believe that the trouble makers in society wind up in a prison and we wanted to better understand the trouble makers within the penitentiary.

Considerable time was spent on new interviews with the inmates, re-searching of prison records and investigations of prison adjustment data on each of the cases. Of the group in "special confinement", thirty per cent lost their father, thirty-five per cent lost their mother, and fifteen per cent both parents prior to their sixteenth birthday. In twenty-seven per cent of the cases, the mother had worked outside the home to supplement the income; in another twenty per cent the mother was the sole support of the family. Records and individual interviews implied that forty-two per cent of the cases in the first experiment came from what could be termed as a poor family climate. In about one-fourth of the group, either the mother or father had a police

Approved for publication by Commissioner, Department Mental Hygiene and Hospitals.

Studies on the Effect of Meprobamate on Anxiety Reactions in Prison Inmates Conducted at the Virginia State Penitentiary as abstracted from the Journal of Social Therapy, First and Second Quarters, 1958. 4: 1 & 2; Third Quarter, 1959, 5: 3.

*Harry Brick, M.D.; W. H. Doub, Jr., M.A.; W. C. Perdue, M.S.

record. The economic status of the family was poor in more than half of the cases. Thirty-eight per cent were raised in urban and sixty-two per cent were raised in rural environments. It was further noted that eighty per cent of the inmates had left home prior to reaching their eighteenth birthday; only ten per cent were found to be skilled workers.

Before the start of the medications, each of the men in the two groups were individually given the Rorschach Projective Technique. After eight weeks of medication, both groups were retested with the Rorschach. A comparison of the Rorschach results implied that the medication did reduce the neurotic factors in those who were given the actual medication. In the experimental group (Meprobamate), retests with the use of the Rorschach implied that tension and anxiety factors had been reduced as much as thirty per cent; while the reduction was five per cent in those who had been given the placebo (control group). As can be seen, the results of the Rorschach implied that the Meprobamate when given as in this experiment, helped the individual inmates in the areas of tension and anxiety. It was found, further, that the medication in the small dosage (400 mg. per day) produced a positive result in eighty per cent of the cases in the experimental group as opposed to twenty-seven per cent in the control group (placebo). No adverse effects or allergic reactions were noted and no indication of addiction appeared. It was, therefore, concluded that the medication, when given in half the recommended dosage, does reduce anxiety and tension, as well as neurotic patterns in this penitentiary, and that further research in this area and other institutions is indicated.

In the first study (1958), we selected two matched groups of inmates who had been isolated from the general prison population because of continued inability to adjust and gave one group Meprobamate while the other group was given a placebo. Both groups were tested before and after with the Rorschach Projective Technique, the Bernreuter Personality Inventory, and the Taylor Anxiety Scale. The medications and placebo were given for a period of eight weeks. After eight weeks, both groups were retested and it was found that Meprobamate was able to alleviate a great amount of tension and anxiety symptoms among the inmates in the "special confinement". The results were gratifying enough to suggest that a more detailed and enlarged study should prove helpful and later the same year, permission was obtained from the prison officials and a study was undertaken on the general prison population.

In the second study, which was enlarged to include inmates from the general prison population, we picked some subjects who were known to us to be constantly troubled with anxiety and tension; while others were volunteers who felt that they might be helped by the use of Meprobamate. After a few weeks we had around sixty men who wanted to participate in the project. By a method of randomization based on their prison numbers, we divided the group into two smaller groups, one was called the control group which was to be given a placebo and the other group, called the experimental group, was to be given the Meprobamate. The medication was to be given to the experimental group in the form of 200 mg. capsules twice daily for eight weeks; the group consisting of around thirty men. In order to obtain objective results as far as possible, a double blind technique was used in that all capsules were identical in form and given to both groups under observation —actual contents of the capsules not being known to the prisoners or to the person giving them.

The offenses proved to be interesting as well as varied in those inmates from "special confinement". Twenty per cent had been convicted of robbery, seven per cent for assault, eighteen per cent for rape, and around thirty-eight per cent for storebreaking and various degrees of larceny. Thus, it can be seen that around sixty-two per cent

of the cases in "special confinement" had been convicted of crimes against the person. Seventy-five per cent of the cases were recidivist in that they had been in trouble of a serious nature prior to being sent to prison on their present sentence.

As can be seen, we were of the opinion that we had a representative sample of the prison trouble makers for our first experiment. Sixty-two per cent of this group had been punished for various breaches of prison rules more than five times. If the entire adult and juvenile records were combined, the group had spent a total of approximately 396 years in confinement—averaging ten years per man.

As can be expected, the results of the use of Meprobamate in the experiment with the prison maladjustment cases were very encouraging. Both the subjective and objective results of our pilot study encouraged us to pursue further study in this area, with inmates of the general prison population. The individual inmates, for the most part, in both experiments proved to be cooperative and seemed to want to help themselves as well as help our team. Analysis of the data in both investigations proved educational not only to our research team, but to prison officials as well. The history of the inmates generally revealed pictures of failures and frustrations that had been continuous since childhood. Tension and anxiety were part of the pattern that appeared to run through most of the individual case histories in both experiments. In the surroundings of a prison still more frustration and tension build up that at a certain stage are released, like a coiled spring, by the slightest stretch or stress. We now begin to understand that failures, as also fear of inability to cope with the complex problems of life, are at the base of most of the trouble and that this in time produces the problem inmate. In an atmosphere of severe repression, most inmates, particularly the emotionally unstable, show no will or understanding for orientation, adjustment, or betterment. Punishment often accomplishes the reverse. It seems inevitable, therefore, to deal constructively with the offender, particularly the recidivist as provision will have to be made for better understanding and study of the causative factors. To be more effective in our efforts of rehabilitation, tranquilizers can be useful, we believe, to establish rapport with the individual inmate during the periods of adjustment and re-education. A calmer and more cooperative individual with increased capacity for group identification, empathy, and willingness to learn may result from such treatment.

The second and more enlarged study implied that if all prisoners displaying anxiety symptoms were treated in this way, we might expect fewer disciplinary problems. The Rorschach results on both groups further implied that the medication, when given as it was, suggested increase in emotional control, intellectual adaptivity and social maturity; with decreases of anxiety and conflict. Modifications of this type are particularly desirable when maladjusted individuals have to live closely together.

Public Health....

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

Epidemics of Infectious Syphilis

In recent months, State Health Department workers have been concerned with widespread infectious syphilis epidemics. In each of these instances, the disease outbreaks have occurred in areas which had reported very little syphilis in previous years. This article reports details of two epidemics.

The first epidemic came to our attention in October, 1961, when a private physician requested epidemiologic assistance from his local health department. This physician had examined a 16-year-old female who had a suspicious rash on the palms of her hands. Subsequent examination, including blood tests, confirmed his diagnosis of secondary syphilis. Upon being interviewed, the girl named 10 sex contacts in the past six months. She also named four persons she thought had had sexual relationships with her contacts but not with herself. Thus 14 persons were learned to have been exposed, either directly or indirectly, to this one source of infectious syphilis.

Three of these 14 persons lived in other states and the appropriate state health departments were immediately advised of our findings. The remaining 11 persons were contacted and referred to physicians in the county. Examination of the 14 persons named by the original patient disclosed six cases of infectious syphilis, four from among the 10 direct contacts, and two from the suspected contacts.

Each of the six new patients was brought to treatment and interviewed. These new cases in turn named 49 additional persons as having been exposed, either directly or indirectly, to infectious syphilis. The naming of these 49 additional people to this single chain of infection revealed some important factors as to the scope and magnitude of this epidemic:

1. Exposure to infectious syphilis had been disseminated throughout the entire county and reached into several neighboring states;
2. While all persons named by the original patient were teenagers, approximately one-half of the next 49 people named were adults;
3. Also, while all of the persons named by the original patient were exposed heterosexually, one-third of the subsequent 49 contacts were exposed homosexually.

When the extent of this epidemic was realized, both private physicians and health department investigators instituted additional measures. Private physicians examined, and treated when necessary, the sex contacts. Additional case finding measures were instituted to prevent further transmission of the disease to others. Additional personnel were assigned to perform immediate epidemiological investigations, and private physicians volunteered to staff night clinics. Through these additional measures, physicians and investigators in the ensuing six weeks uncovered a total of 289 people who had been exposed to either primary or secondary syphilis.

Two hundred and fifty-three of the patients lived in the involved county and the remainder lived in several cities in Virginia and the States of North Carolina, South Carolina, Maryland, New York, and New Jersey. One-half of the 289 were teenagers, and one-third of the group had been exposed homosexually. Over fifty

people were brought to treatment for previously undiscovered infectious syphilis.

Inasmuch as many of the patients were children of school age, physicians, health workers, and other authorities believed that additional control techniques should be applied. A meeting was called in the local high school of the involved county. Over four hundred parents attended and heard the magnitude of the epidemic described as well as some facts about syphilis. It was recommended at this meeting that the parents should consider having private physician perform blood tests on all children of high school age. As a result, approximately 800 students received blood tests, with three new cases of syphilis being found.

A second epidemic of much smaller magnitude is occurring at this time in another area in Virginia. Forty-seven of fifty individuals in a small roadside community of itinerants have been exposed to infectious syphilis. Reconstructing the events in this chain of infection, it appears the source case originated in New Jersey. The disease has infected six of the 47. Reinterviews with the infected individuals uncovered evidences of interracial exposure.

In each of these epidemics, private physicians detected the initial cases and examined the majority of the persons subsequently revealed to have been exposed to the disease. Health Department epidemiologic investigators interviewed and reinterviewed the infected patients for contacts and referred the contacts to physicians for evaluation.

Summary

Infectious syphilis epidemics have occurred in areas that previously had reported very few syphilis cases. The combination of private physicians and health department investigators, working together to control and stop the spread of disease, has resulted in a team approach which in each instance was responsible for finding and treating many infected people. Unquestionably, this combination of resources has saved many people from the spread of infection and disability and death from the advanced stages of syphilis.

Monthly Report of Bureau of Communicable Disease Control

	June 1962	June 1961	Jan.-June 1962	Jan.-June 1961
Brucellosis	4	3	8	10
Diphtheria	2	2	7	6
Hepatitis	90	118	804	749
Measles	1159	1999	8778	10327
Aseptic Meningitis	4	4	11	12
Meningococcal Infections	11	0	34	29
Poliomyelitis	0	0	2	0
Rabies (in animals)	7	8	79	142
Rocky Mt. Spotted Fever	10	10	13	18
Streptococcal Infections	468	357	9090	3891
Tularemia	2	1	8	11
Typhoid Fever	2	1	9	9

Cancer Trends . . . .

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Laryngeal Cancer and Conservative Therapy

As the result of late diagnosis due to various reasons, the larger number of our cases of laryngeal carcinoma and carcinoma of the adjacent structures require total laryngectomies and neck dissections. This fact has been disclosed in a clinical research study of our cases which is now in progress in the Department of Otolaryngology at the University of Virginia Hospital.

Much has been presented in the literature pertaining to this treatment modality, by otolaryngologists and other specialists. The need for this extensive ablative surgery under certain conditions is well recognized, as, on the other hand, is the fact that good results may be obtained by irradiation in many cases of the early superficial cordal category.

Recently, the "in between" group of cases, or those not advanced to the degree that the entire larynx must be sacrificed, but too far advanced for irradiation, has undergone surgical re-evaluation. This critique has been stimulated by the excellent work of Ogura,[1] Pressman,[2] and others. As the result of their studies of the anatomy of the larynx and the behavior of cancers of this organ, surgical methods have been devised whereby parts of the larynx formerly totally sacrificed may be conserved, thus avoiding the need for permanent tracheotomy, and even, in many cases, providing for a communicative voice. Very careful choice of patients for this type of surgery is obviously necessary and should be made by those familiar with the work of these laryngologic surgeons[1,2] and also with the pathology and anatomy of the larynx. To acquire this familiarity there must be frequent, even daily, observation of the normal and abnormal laryngopharynx.

Soon will be published[3] the results of experimental efforts to create new larynges from plastic and metal materials. This will lead undoubtedly to efforts to transplant the entire structure sometime in the future, as improbable as this now may seem.

Other methods to improve rehabilitation are seen in attempts to create new vocal cord structures by the use of transposed regional pedicle flaps,[4] the development of tracheostomy stomata that require no metal tubes or plastic inserts, and operative procedures that will improve the quality of bucco-esophageal speech.

Training facilities and personnel for the instruction and improvement of speech in the total and partial laryngectomies are being made available over a wider area of the State, and the electronics engineers are improving the artificial speech aids useful to those who are unable to develop bucco-esophageal speech for various reasons, such as age, lack of motivation, etc.

Laryngectomy patients have formed clubs with the objective of aiding in betterment of the speech and morale of their colleagues, thus advancing their adjustment and rehabilitation. All become part of a useful team: the patients and the various professional groups who work with them.

Good results with reference to permanent cure and rehabilitation may be expected in cancer of the larynx if the diagnosis is made early, or, if the diagnosis is delayed, by institution of the correct type of surgery.

References

1. Ogura, J. H., et al.: Experiences with Conservation Surgery in Laryngeal and Pharyngeal Carcinoma. Laryngoscope 71: 258-276, March, 1961.

2. Pressman, J. J. and Simon, M. B.: Evaluation of Subtotal Laryngectomy Based Upon Studies of the Lymphatics of the Larynx and Neck. Laryngoscope 71: 1019-1027, Sept., 1961.
3. McCall, J. W. and Whitaker, C.: A Preliminary Report of Prostheses in the Larynx and Trachea. To be published in Ann. Otol., and Rhinol., Laryngol.
4. Conley, J. J.: Glottic Reconstruction and Wound Rehabilitation. Arch. of Otolaryngology, 74: 239-242, Sept., 1961.

American Cancer Society

The 1962 Scientific Session of the American Cancer Society is being held at Biltmore Hotel, New York, October 22-23, 1962, and the program is reproduced below:

THE CLINICAL IMPACT OF A QUARTER CENTURY OF CANCER RESEARCH

October 22, 1962

Milestones in Cancer Research—The Past 25 Years, Dr. John R. Heller, President, Memorial Sloan-Kettering Cancer Center, New York City.

The Epidemiology of Cancer—Scope and Trends, Dr. Lester Breslow, Department of Public Health, Berkeley, California.

Chemical Carcinogenesis, Dr. Albert Tannenbaum, Michael Reese Hospital, Chicago, Illinois.

Physical Agents as Causative Factors, Dr. Austin M. Brues, Argonne National Laboratories, Lemont, Illinois.

Viruses and Cancer, Dr. Wendell M. Stanley, University of California, Berkeley, California.

Tobacco and Cancer, Dr. Ernest L. Wynder, Memorial Sloan-Kettering Cancer Center, New York City.

The Chemical Basis of Genetics as Related to Cancer, Dr. Vincent Allfrey, Rockefeller Institute, New York City.

Cancer Cells: Enzyme Localization and Ultrastructure, Dr. Alex B. Novikoff, Albert Einstein College of Medicine, New York City.

Cellular Differentation and Neoplasms, Dr. Thomas J. King, The Institute for Cancer Research, Philadelphia.

Susceptibility and Resistance to Cancer, Dr. Chester Southam, Memorial Sloan-Kettering Cancer Center, New York City.

Cancer Cell Spread, Dr. George E. Moore, Roswell Park Memorial Institute, Buffalo, New York.

October 23, 1962

Problems and Progress in Cancer Detection, Dr. Emerson Day, Memorial Hospital for Cancer and Allied Diseases, New York City.

Cytologic Diagnosis of Cancer—Its Present and Future, Dr. Leopold Koss, Memorial Hospital for Cancer and Allied Diseases, New York City.

Radiology in Cancer Detection and Diagnosis, Dr. Wendell G. Scott, Washington University, St. Louis, Missouri.

The Potential of New Techniques Including Automation in Cancer Detection, Dr. George Z. Williams, Department of Health, Education & Welfare, Bethesda, Maryland.

Progress and Prospects in Cancer Staging, Dr. Murray M. Copeland, M.D. Anderson Hospital & Tumor Institute, Houston, Texas.

Surgery in the Treatment of Cancer—Present Status, Dr. Warren H. Cole, University of Illinois, Chicago.

Radiotherapy of Cancer—Present Status, Dr. Richard H. Chamberlain, University of Pennsylvania, Philadelphia.

Hormone Therapy of Cancer, Dr. Charles B. Huggins, University of Chicago, Chicago.

Formulation and Evaluation of Chemotherapeutic Agents, Dr. Howard E. Skipper, Southern Research Institute, Birmingham, Alabama.

Systemic Chemotherapy, Dr. C. Gordon Zubrod, National Cancer Institute, Bethesda, Maryland.

Adjuvant Chemotherapy of Cancer, Dr. I. S. Ravdin, University of Pennsylvania, Philadelphia.

Editorial . . . .

Mucormycosis — A Re-evaluation

THE MEDICAL LITERATURE is slowly accumulating reports of disease in man due to fungi of the order Mucorales (Mucormycosis). Most reported cases of Mucormycosis have been considered to be a complicating infection in a patient already debilitated by another disease, or one in whom steroid therapy had been administered. Other cases have been reported following antibiotic or radiation therapy. The uncontrolled diabetic state has seemed to provide a fertile ground for development of clinical mucormycosis infections.

Mucor are ubiquitous and frequent contaminants in cultures of clinical materials obtained from the surfaces and orifices of the human body. It may occur in the soil, in manure, and on fruits, and may be referred to as "bread mold". Spores may become airborne and enter the sinuses and lungs of man and animals by inhalation. These spores also may be ingested with foods and initiate infection of the gastrointestinal tract.

The infection is acute rather than chronic and there is an affinity for blood vessels and lymphatics resulting in thrombosis and infection. The respiratory tract is the chief portal of entry and common forms of the disease are ocular, cerebral, pulmonary, intestinal, and disseminated.

The hyphae are broad and non-septate bearing sporangia containing many small spores. The material seen in tissues has been called mucor because of the width (6 to 50 mu).

Paltauf described the first case of mucormycosis in 1885. Further reports have originated in Europe, and especially Germany; finally our interest in this clinical state was re-awakened in America in 1943. The disease has been reported occurring twice as often in males as in females, and ranges in age from 16 days to 75 years.

Mucormycosis, in addition to the uncontrolled diabetic, may be found in association with uremia, cirrhosis, leukemia, various terminal carcinoma cases, severe burns, long standing use of steroids, or antibiotics or anti-carcinoma drugs. The growth of the fungus seems to be aided by the use of antibiotics, steroids, adrenal corticotropic hormones, folic acid antagonists and ionizing radiation.

The infection which we refer to as mucormycosis actually refers to infection by a member of the order Mucorales which belongs to the class Phycomycetes. The varieties found in man are mucor, absidia, or rhizopus. The intriguing aspect of this condition is why a usually saprophytic, non pathogenic fungus should become invasive. Whether this represents a decreased host resistance or a changing milieu brought about by therapy or a lesion incident to the primary disease permitting growth of the fungus is unsolved.

There seems to be no especial world predilection for this disorder. In addition, all races seem to be susceptible to infection, and there is no known occupational predisposition to the disease.

A typical appearance of the cerebral mucormycosis would be a diabetic in acidosis. The victim frequently demonstrates unilateral ophthalmoplegia and has a sinus congestion. The sinus is furthermore frequently involved with the fungus. This condition is quite fatal.

Pulmonary mucormycosis, on the other hand, is usually not so typical. It is reported to resemble a pulmonary infarct. It is also frequently fatal.

The gastrointestinal tract may be involved with mucormycosis infestation and is more often seen in cases of terminal gastritis or, and perhaps slightly more frequently, in hemorrhagic enteritis. The gastrointestinal tract seems particularly vulnerable in debilitating disease states. The skin, eyes, and kidneys are also frequent target areas of mucor.

Studies on experimental animals have been done, particularly by Bauer, Flanagan, and Sheldon. They have reported that rabbits inoculated with Rhizopus oryzae will develop the lesions of nasal, pulmonary, and cerebral mucormycosis even when the fungous inoculation precedes acute alloxan diabetes by several days. They found alloxan diabetic rabbits to have mucor uptake in the sinuses without inflammatory cells in large numbers. It was also found that increased blood glucose levels without diabetes will not allow mucor to form. There must be true metabolic changes. The non-diabetic host shows polymorphonuclear leukocytosis surrounding the fungi and preventing their spread, but the diabetic animal seems unable to proliferate polymorphonuclear leukocytes and is unable to prevent the spread of mucor.

The mechanism of action is probably a systemic one, or a local one in the acidotic animal leading in either instance to mucormycosis. A humoral factor is also thought to be present. The cellular host response is influenced by inflammatory reaction.

The therapy of this condition is presently unsatisfactory. Correction of the underlying metabolic defect is essential. Amphotericin B has been noted to have some effect in inhibiting Rhizopus infection. Therapy with iodides, anticoagulants, antibiotics, and nystatin have proved unsatisfactory to date. The use of an autogenous vaccine has had limited use, and cannot be adequately evaluated at this time.

Robert Edgar Mitchell, Jr., M.D.

Current Currents

SPECIAL REPORT ON ACTIONS OF THE HOUSE OF DELEGATES OF THE AMA

The following summary covers only a few of the many important subjects dealt with by the House and is not intended as a detailed report on all actions taken.

HEALTH CARE FOR THE AGED: The House received 17 resolutions expressing full support of the Kerr-Mills program and firm opposition to the King-Anderson type of legislation. In reaffirming the position of active opposition to the King-Anderson Bill, the House cited the following reasons: (1) the lack of need for such a plan; (2) that it would provide inadequate care for all aged rather than complete care for those who need help; (3) the fact that inherent in the use of the Social Security mechanism are governmental controls of medical practice which would increase with the expansion of the program; (4) deterioration of the quality of medical care not only for the aged but for the population as a whole.

In reaffirming strong support for the Kerr-Mills Act, the House declared that "the Kerr-Mills method should be given a fair and reasonable chance to meet the need and thus remove the demand for further Federal legislation."

The House took no action on one resolution which called for non-participation in the implementation of the King-Anderson Bill, but it urged individual physicians to give particular consideration to the following sections of the Principles of Medical Ethics:

> "Section 1.—The principle objective of the medical profession is to render service to humanity with full respect for the dignity of man. Physicians should merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion.
>
> "Section 5.—A physician may choose whom he will serve. In an emergency, however, he should render service to the best of his ability. Having undertaken the care of a patient, he may not neglect him; and unless he has been discharged he may discontinue his services only after giving adequate notice. He should not solicit patients.
>
> "Section 6.—A physician should not dispose of his services under terms or conditions which tend to interfere with or impair the free and complete exercise of his medical judgment and skill or tend to cause a deterioration of the quality of medical care."

AMERICAN BOARD OF ABDOMINAL SURGERY: A study report from the Council on Medical Education and Hospitals, recommending that recognition should not be granted to the American Board of Abdominal Surgery as a specialty board, was approved by the House. In accepting the Council report, the House also declared its disapproval in principle of establishing specialties which are based largely or wholly on an arbitrarily defined anatomical region of the body.

AMERICAN COLLEGE OF SURGEONS: In considering a Board report and four resolutions involving surgical assistants and relations between the AMA and the American College of Surgeons, the House declared that the adoption and interpretation of the Principles of Medical Ethics is the prerogative and duty of the American Medical Association. It also restated the Association's June, 1961, policy statement in the following manner: "(1) Each member of the AMA is expected to observe the Principles of Medical Ethics in every aspect of his professional practice; (2) Each doctor engaged in the care of the patient is entitled to compensation commensurate with the value of the services he has personally rendered; (3) No doctor should bill or be paid for a service which he does not perform; mere referral does not constitute a professional service for which a professional charge should be made or for which a fee may be ethically paid or received; (4) When services are rendered by more than one physician, each physician should submit his own bill to the patient and be compensated separately whenever possible; (5) It is ethically permissible in certain circumstances, however, for a surgeon to engage other physicians to assist him in the performance of a surgical procedure and to pay a reasonable amount for such assistance. This principle applies whether or not an assisting physician is the referring doctor."

VOLUNTARY HEALTH INSURANCE: In accepting a Council on Medical Service report on the utilization of state and federal tax funds to provide voluntary pre-payment health insurance protection to assist the aged in meeting the costs of health care services, the House approved the following policy statement: "(1) The need for application of the prepayment or insurance principle to protect our people against the costs of medical care is fully recognized and applies to all ages rather than to the aged alone; (2) Persons financially able to prepay their own expenses are expected to do so and must be encouraged rather than compelled to do so; (3) Persons financially unable to prepay adequately their expenses may properly be assisted to the degree necessary by their families, their communities, their states, and if these fail, by the Federal Government—but only in conjunction with other levels of government; (4) The prepayment system should be devoid of governmental controls; (5) Dignity and self-sufficiency for the individual should be upheld; (6) The protection offered must be reasonably comprehensive rather than token in character."

The House recommended that the Board of Trustees and the Council on Medical Service explore all possibilities, using these principles as a basis.

PRESIDENT-ELECT: Dr. Edward R. Annis, Miami, Florida, was chosen President-Elect of the Association.

SECOND INTERSTATE SCIENTIFIC ASSEMBLY—WASHINGTON, D.C., OCTOBER 14-17

News . . . .

New Members.

The following members were admitted into The Medical Society of Virginia during the month of June:

William Joseph Hancock, M.D., Winchester
Anthony Joseph Munoz, M.D., Farmville
Richard King Neal, Jr., M.D., Norfolk
Martin George Netsky, M.D., Charlottesville
Gorman Joseph Redding, M.D., Alexandria
William Derwart Stallings, M.D., Virginia Beach
Hyman Stromberg, M.D., Richmond
Bate Carpenter Toms, Jr., M.D., Martinsville
Bernard Francis Wittkamp, M.D., Richmond

State Board of Medical Examiners.

At the annual meeting of the Board, Dr. Snowden Hall, Danville, was named president; Dr. James Chitwood, Pulaski, vice-president, and Dr. Russell M. Cox, Portsmouth, re-elected secretary-treasurer.

Governor Harrison has appointed Dr. James Brooke Hutt, Jr., Warrenton, as a member of the Board, succeeding Dr. Cecil Glen Finney of Culpeper. He has re-appointed Dr. D. Edward Watkins, Waynesboro, and Dr. James L. Chitwood, Pulaski, as members.

American Medical Association.

At the annual meeting of this Association, held in Chicago, June 24-28, Dr. George M. Fister, Ogden, Utah, was installed as president. Dr. Edward R. Annis, Miami, Florida, was named president-elect.

Virginia Heart Association.

Dr. Julian R. Beckwith, Charlottesville, has been elected president of this Association. Dr. Robert F. Bondurant, Roanoke, has been named president-elect. Drs. Paul D. Camp, Richmond, and John W. Massey, Jr., Newport News, have been elected to the executive committee.

Dr. A. Erskine Sproul

Has been named "Father of the Year" by the Staunton-Augusta Chamber of Commerce. He was nominated by the Staunton Jaycees as "the finest example of what a father should be, and also a fine example of a civic-minded member of this community." Dr. Sproul has four boys, ages 12, 14, 15 and 18.

Dr. Wolfe Honored.

A portrait of Dr. Frank Bays Wolfe has been presented to the Franklin Memorial Hospital by the citizens of the town and county. The portrait was painted by David Silvette, Richmond. Dr. Wolfe played a large part in the development of the Hospital and was the first president of the medical staff. He has served on the board of trustees and is a member of the active staff.

Another civic idea conceived by Dr. Wolfe was that of a speech and hearing center. This too is now a reality and Rocky Mount citizens proclaim that their city is "the smallest in the United States with a community-supported speech and hearing center."

Dr. Fletcher D. Woodward,

Charlottesville, has received the first Medical Tribune award for auto safety. The award honors a physician for "lifesaving achievement in the service of health".

Dr. Glenn B. Updike, Jr.,

Danville, has been appointed by Governor Harrison as a member of the Advisory Hospital Council for a term of four years.

Dr. William H. Higgins, Jr.,

Has been named president-elect of the Richmond Area Heart Association.

Sheltering Arms Hospital Staff.

The Richmond hospital has announced the following appointments: Dr. Robert E. Mitchell, Jr., chief of staff; Dr. J. Shelton Horsley, III, chief of surgery, and Dr. William W. Martin, chief of medicine. The joint conference committee is composed of these three doctors and Drs. Joseph W. Coxe, III, and Jack Freund. The medical records committee is Dr. William R. Tabor, chairman, and Drs. Nicholas G. Poulas and Philip Fredericks, Jr. Dr. Carmen J. Kaye is chairman of the library committee and Dr. Paul Middleton a member. The infections committee is composed of Dr. John A. Gill, Chairman, and Dr. Armistead Williams.

Dr. Negus Retires.

Dr. Sidney Negus has retired as chairman of the biochemistry department of the Medical College of Virginia, ending a fifty-year teaching career. Dr. "Sid" has taught nearly 10,000 young people in their preparatory school, camping, college and medical school days. It would be impossible to list his many accomplishments and honors. The current Who's Who takes three inches of fine print to merely outline his biography.

Dr. Samuel Palmer Hileman,

Hot Springs, has been named Bath County's 1962 "Citizen of the Year". The award was presented by the Chamber of Commerce at its June meeting. He has practiced medicine in the County since 1923.

Dr. Donald S. Myers,

Hot Springs, has been elected president of the Bath County Chamber of Commerce.

Dr. Carl E. Stark,

Wytheville, was recently elected a member of the Town Council. He received the highest number of votes in the election.

Roanoke Valley Heart Association.

Dr. Robert E. Paine, Jr., Salem, has been named president-elect of this Association, and Dr. Harry I. Johnson, Roanoke, vice-president. Drs. Keith C. Edmunds and Reuben D. Knopf, both of Roanoke, have been named to the Board of Directors.

I. A. Bigger Surgical Medal.

The Medical College of Virginia has announced that this medal has been awarded to Dr. Hunter Holmes McGuire, Jr., Richmond. The award is presented annually to the surgical house member, who in the opinion of associates, students and the surgical staff, has done the most to assist undergraduates.

Medical College of Virginia Alumni.

Mr. Roy W. Smith, Petersburg, has been named president of the Alumni Association. Dr. J. Robert Massie has been named president-elect; Dr. W. C. Henderson, secretary; and Dr. James T. Tucker, treasurer. They are all from Richmond.

American Board of Obstetrics and Gynecology.

The following Virginia doctors have recently been certified by the Board in the specialty of obstetrics and gynecology:

Dr. Kenneth Rone Baldwin, Newport News
Dr. David Ware Branch, Roanoke
Dr. Alberto Juan Garcia, Falls Church
Dr. Norman Nash Hill, Jr., Norfolk
Dr. Charles Fenton Hunt, Charlottesville
Dr. William E. Josey, Norfolk
Dr. Patrick James Leary, Falls Church

John Horsley Memorial Prize.

Three winners of this prize were announced at the recent annual banquet for

alumni of the University of Virginia School of Medicine. They are Dr. Guy F. Hollifield, associate professor of internal medicine, and Dr. John A. Owen, Jr., assistant professor of internal medicine, for a study they made on the role of fatty tissue in diabetes, and Dr. Stanton P. Nolan, a 1962 graduate, for experimental studies of physiological changes occurring with insufficiency of the aorta.

Interstate Postgraduate Medical Association.

The 47th annual Scientific Assembly of this Association will be held in Chicago, October 1-4, and offers 20½ hours of varied teaching and A.A.G.P. Category II credit. The program is especially suited to the needs of generalists and panels will be on arthritis, diabetes, tranquilizers and energizers, medical and surgical treatment of duodenal ulcers, and newer treatment of hypertension.

Full details of the program may be obtained from N. A. Hill, M.D., Secretary, Box 1109, Madison 1, Wisconsin.

Pediatrics Chair Established.

A chair in pediatrics has been established at the University of Virginia School of Medicine in memory of Benjamin Armistead Shepherd and of his grandson and namesake, a University alumnus. Mrs. Malcolm W. Perkins, Asheville, North Carolina, granddaughter and sister of the men, is giving a $235,000 endowment for this professorship.

Terrace Hill Nursing Home,

Richmond, has become the first nursing home in Virginia to be listed by the American Hospital Association.

Position Available

As Director of Medical Education of Louise Obici Memorial Hospital, Suffolk, Virginia. For full particulars, write Administrator of the Hospital, Suffolk. (*Adv.*)

Position Available.

Preferably an internist, as director of Medical Education, and of out-patient clinics, Portsmouth General Hospital. Salary open. Contact Dr. William S. Terry, President of Medical and Dental Staff, Portsmouth General Hospital, Portsmouth, Virginia. (*Adv.*)

Wanted.

Young general practitioner to join established two-man G.P. partnership. Write Drs. Youngblood and Bowyer, Hopewell, Virginia. (*Adv.*)

Obituaries . . . .

Dr. Walter Gordon Trow,

Warrenton, died June 13th at the age of eighty-two. He was a graduate of George Washington University in 1905 and practiced on the Eastern Shore for a few years before locating in Warrenton. Dr. Trow had been a member of The Medical Society of Virginia for fifty-two years.

A daughter and two sons survive him.

Dr. Mary Harley

Died on May 31st in a hospital in Lynchburg where she had been a patient for several years. She was ninety-six years of age and a graduate of the Women's Medical College of the New York Infirmary in 1892. Dr. Harley was the first college physician and the only remaining member of the original staff of Sweet Briar College. She remained as college physician and professor of physiology and hygiene at the College until her retirement in 1935. Following her retirement, Dr. Harley traveled far in the pursuit of her studies in anthropology going from Hawaii to South Africa. She made several trips to Johannesburg and the Transvaal Museum to study fossils. Her last trip was made when she was well over eighty years of age.

Dr. Harley had been a member of The Medical Society of Virginia for fifty-two years.

Dr. Edmond Lafayette Sikes,

Pound, died June 21st at the age of seventy-five. He received his medical degree from Emory University in 1914 and had practiced medicine in Wise County for forty-three years. Before locating in Wise, Dr. Sikes served as city health officer at Kingsport, Tennessee. He was active in business and civic affairs in his hometown. He was a past president of the Kiwanis Club and a Mason. In 1950 Dr. Sikes was honored by the State of Kentucky when the governor named him as a "Kentucky Colonel". He had been a member of The Medical Society of Virginia since 1924.

His wife, a daughter and a son survive him.

Dr. Lawrence Paul Jones,

Emporia, died June 23rd, at the age of fifty-three. He was a graduate of the Medical College of Virginia in 1933 and had practiced in Emporia since 1934. Dr. Jones was a Mason and a member of the Woodmen of the World. He had been a member of The Medical Society of Virginia for twenty-eight years.

His wife, a daughter and a son survive him.

Dr. Robert Hoyt Flynn,

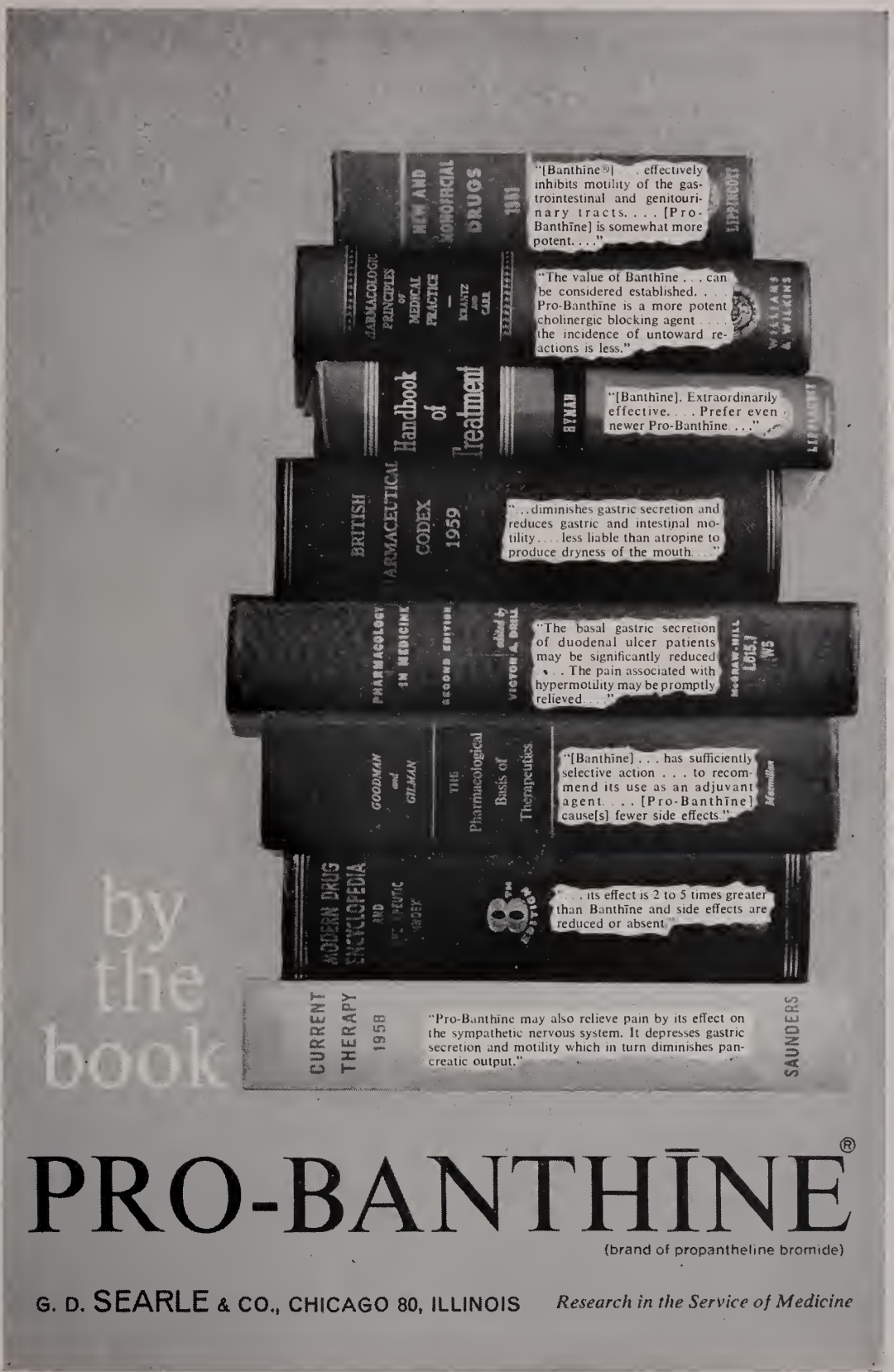
Radford, died June 29th following a heart attack. He was fifty-five years of age and graduated from the Medical College of South Carolina in 1931. Dr. Flynn was an eye, ear, nose and throat specialist and had practiced in Radford for seventeen years. He had been a member of The Medical Society of Virginia for sixteen years.

His wife and four sisters survive him.

Dr. Russell Watson Roberts,

Lovingston, died June 13th, at the age of sixty-nine. He was a graduate in medicine of the University of Virginia in 1922. Dr. Roberts practiced in Man, West Virginia, until his retirement in 1955 when he moved to Charlottesville. In 1959 he resumed the practice of medicine at Lovingston. Dr. Roberts was the organizer and first president of the Rotary Club at Man. He had been a member of The Medical Society of Virginia for several years.

His wife and two daughters survive him. A daughter is Dr. Sarah Chitwood of Pulaski.



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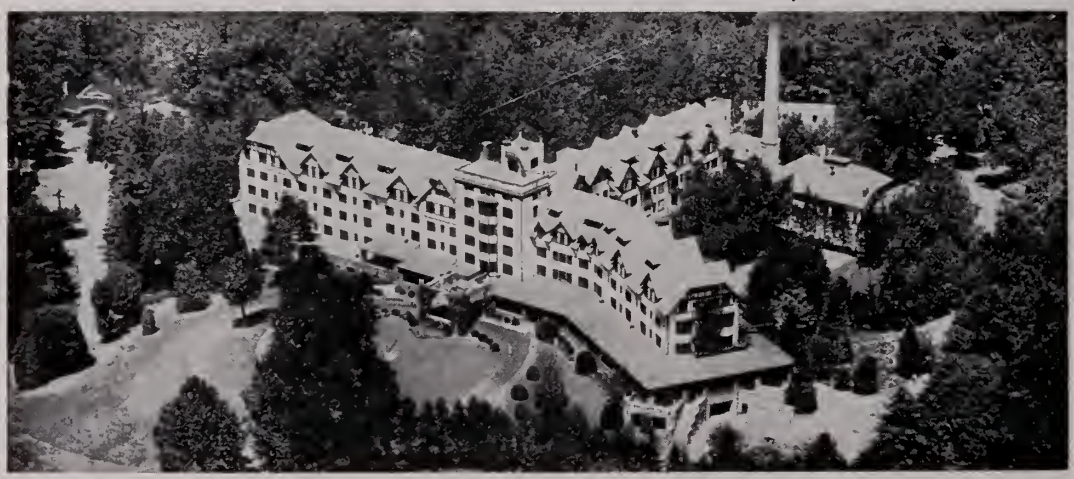
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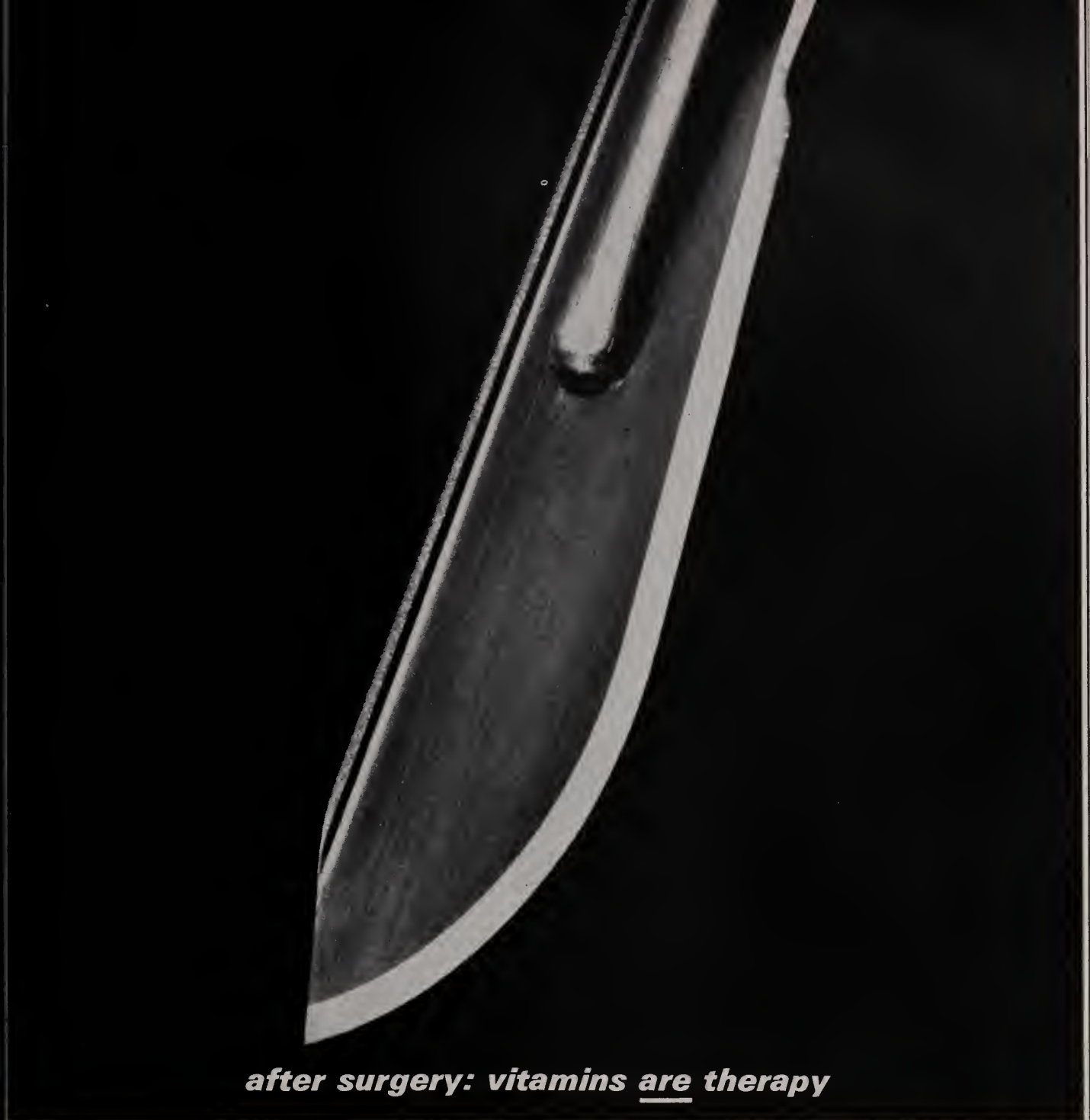
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1. Hodges, F. T.: *GP* 14:86, Nov., 1956.
2. Guild, B. T.: *Arch. Dermat.* 51:391, June, 1945.

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*R. V. Ford: Cur. Ther. Research, 2:51, 1960.

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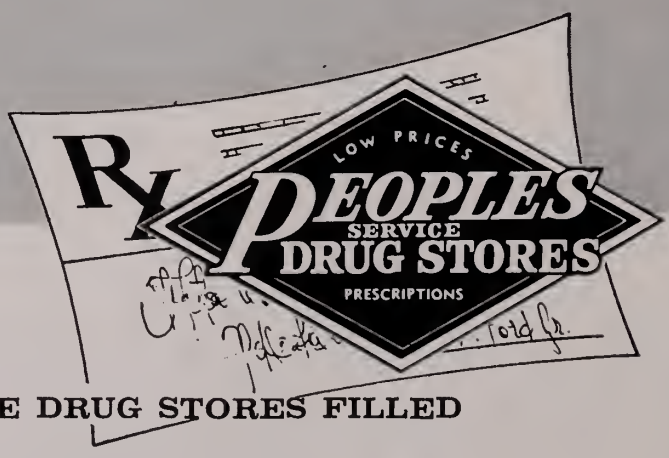
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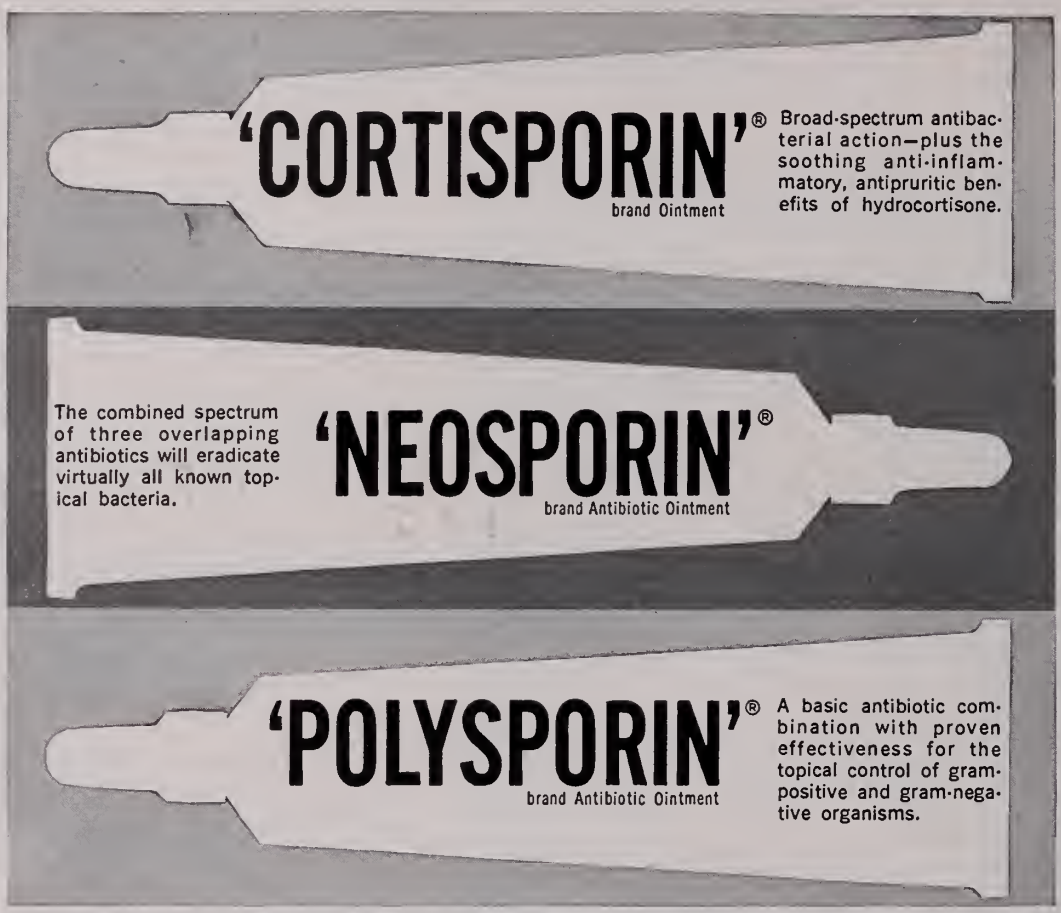
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"In a series of over 3,000 epileptics... DILANTIN alone or in combination with other drugs has been the sheet anchor in the management."[1] DILANTIN is the established anticonvulsant medication for a variety of reasons: • effective control of grand mal and psychomotor seizures[1-9] • oversedation is not a problem[2] • possesses a wide margin of safety[3] • low in incidence of side effects[3] • its use is often accompanied by improved memory, intellectual performance, and emotional stability.[10] DILANTIN (diphenylhydantoin, Parke-Davis) is available in several forms, including DILANTIN Sodium Kapseals,® 0.03 Gm. and 0.1 Gm., bottles of 100 and 1,000. Other members of the PARKE-DAVIS FAMILY OF ANTICONVULSANTS for grand mal and psychomotor seizures: PHELANTIN® Kapseals (Dilantin 100 mg., phenobarbital 30 mg., desoxyephedrine hydrochloride 2.5 mg.), bottles of 100. for the petit mal triad: MILONTIN® Kapseals (phensuximide, Parke-Davis) 0.5 Gm., bottles of 100 and 1,000, and Suspension, 250 mg. per 4 cc., 16-ounce bottles. CELONTIN® Kapseals (methsuximide, Parke-Davis) 0.3 Gm., bottles of 100. ZARONTIN® Capsules (ethosuximide, Parke-Davis) 0.25 Gm., bottles of 100.

REFERENCES: (1) Roseman, E.: *Neurology* 11:912, 1961. (2) Bray, P. F.: *Pediatrics* 23:151, 1959. (3) Chao, D. H.; Druckman, R., & Kellaway, P.: Convulsive Disorders of Children, Philadelphia, W. B. Saunders Company, 1958, p. 120. (4) Crawley, J. W.: *M. Clin. North America* 42:317, 1958. (5) Livingston, S.: The Diagnosis and Treatment of Convulsive Disorders in Children, Springfield,. Ill., Charles C Thomas, 1954, p. 190. (6) *Ibid.*: *Postgrad. Med.* 20:584, 1956. (7) Merritt, H. H.: *Brit. M. J.* 1:666, 1958. (8) Carter, C. H.: *Arch. Neurol. & Psychiat.* 79:136, 1958. (9) Thomas, M. H., in Green, J. R., & Steelman, H. F.: Epileptic Seizures, Baltimore, The Williams & Wilkins Company, 1956, pp. 37-48. (10) Goodman, L. S., & Gilman, A.: The Pharmacological Basis of Therapeutics, ed. 2, New York, The Macmillan Company, 1955, p. 187.

This advertisement is not intended to provide complete information for use. Please refer to the package enclosure, medical brochure, or write for detailed information on indications, dosage, and precautions.

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan

93362



VIRGINIA MEDICAL MONTHLY

(Founded by Landon B. Edwards. M. D.. April 1874)

PUBLISHED MONTHLY BY THE MEDICAL SOCIETY OF VIRGINIA

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NTZ Nasal Spray gives prompt, dependable decongestion of the nasal membranes for fast symptomatic relief of hay fever. The first spray shrinks the turbinates, restores nasal ventilation and stops mouth breathing. The second spray, a few minutes later, improves sinus ventilation and drainage. Excessive rhinorrhea is reduced.

NTZ is more than a simple vasoconstrictor. It contains Neo-Synephrine® HCl 0.5%—the efficacy of which is unexcelled—to shrink nasal membranes and provide inner space; Thenfadil® HCl 0.1% for potent topical antiallergic action; and Zephiran® Cl 1:5000 (antibacterial wetting agent) to promote the spread of the decongestant components to less accessible nasal areas. NTZ is well tolerated and does not harm respiratory tissues.

NTZ Nasal Spray also provides decongestive relief for head colds, perennial rhinitis and sinusitis. Supplied in leakproof, pocket-size, squeeze bottles of 20 ml. and in bottles of 30 ml. with dropper.

helps hay fever patients forget the "season"

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Winthrop LABORATORIES New York 18, N.Y.

NTZ, Neo-Synephrine (brand of phenylephrine), Thenfadil (brand of thenyldiamine) and Zephiran chloride (brand of benzalkonium chloride, refined)

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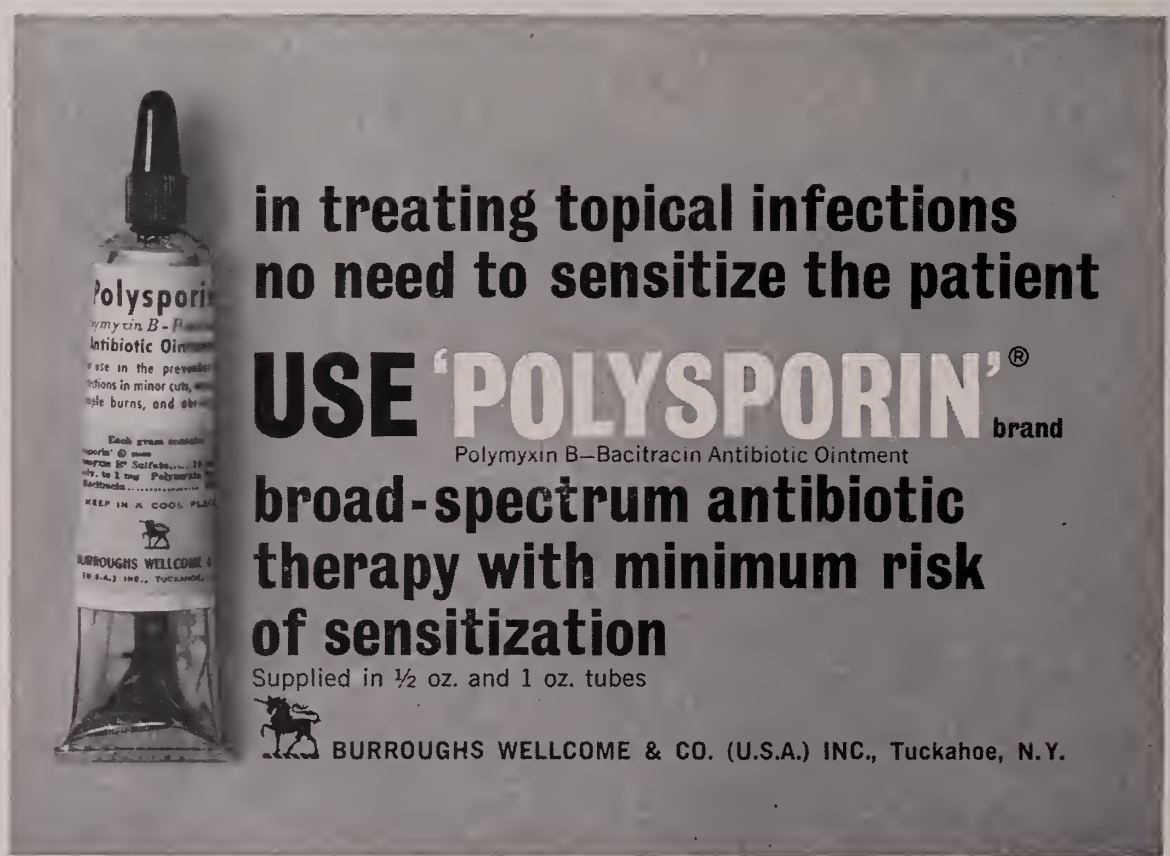
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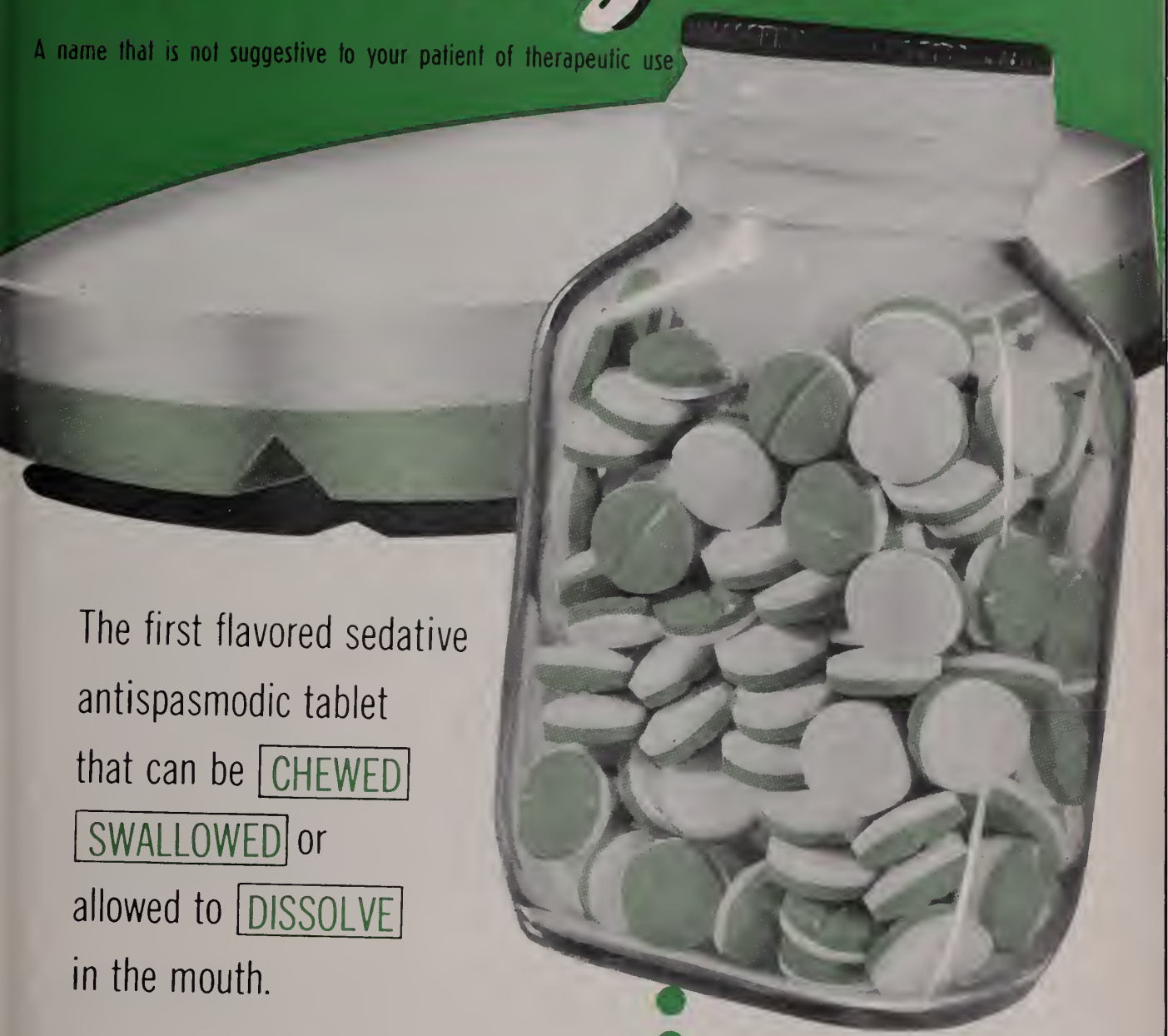
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Atro Hyos P T.M.

A name that is not suggestive to your patient of therapeutic use



The first flavored sedative antispasmodic tablet that can be CHEWED SWALLOWED or allowed to DISSOLVE in the mouth.

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Phenobarbital (Barbituric Acid Deriv.)	20.0 Mg.
WARNING: MAY BE HABIT FORMING	
Hyoscyamine Hydrobromide	0.134 Mg.
Hyoscine Hydrobromide	0.0081 Mg.
Atropine Sulfate	0.02 Mg.

Jones

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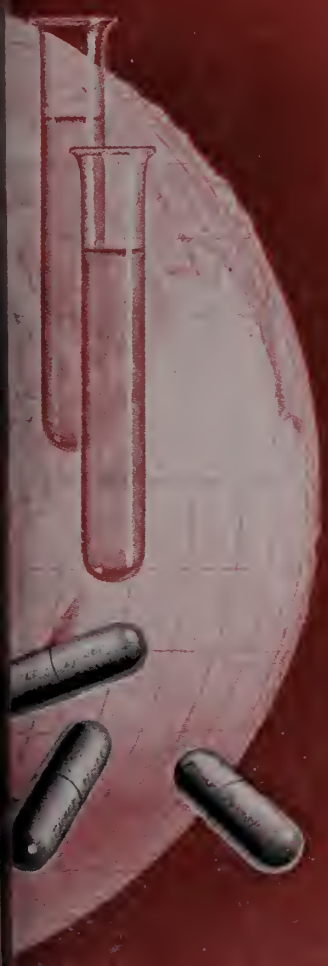
JONES AND VAUGHAN, INC., Richmond 26, Va.



from boutonneuse fever in Africa

Whether treating boutonneuse fever, bronchopneumonia, or a host of other infections, physicians throughout the world continue to rely on the effectiveness, relative safety, and exceptional toleration of Terramycin in broad-spectrum antibiotic therapy. This continuing confidence is based upon thousands of published clinical reports and successful experience in millions of patients. *The next infection you see will more than likely be "Terra-responsive."*

Science for the world's well-being® Pfizer PFIZER LABORATORIES Division, Chas. Pfizer & Co., Inc. New York 17, New York



IN BRIEF The dependability of Terramycin in daily practice is based upon its broad range of antimicrobial effectiveness, excellent toleration, and low toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. For complete information on Terramycin dosage, administration, and precautions, consult package insert before using.

More detailed professional information available on request.

Boutonneuse fever is a tick-borne, acute, febrile disease often affecting children. The bite site becomes a small, necrotic ulcer. A striking macular or maculopapular eruption develops on the trunk, palms and soles. Onset is sudden, with chills, high fever, violent headache and lassitude. The high temperature—up to 103° F.—characteristic of both boutonneuse fever and bronchopneumonia, drops rapidly following initiation of Terramycin therapy.

to bronchopneumonia in Virginia

BRAND OF OXYTETRACYCLINE

Terramycin® capsules • syrup • pediatric drops
intramuscular solution • intravenous

also available with nystatin as TERRASTATIN® (capsules and oral suspension)

Relieves Anxiety and Anxious Depression



The outstanding effectiveness and safety with which Miltown relieves anxiety and anxious depression—the type of depression in which either tension or nervousness or insomnia is a prominent symptom — has been clinically authenticated time and again during the past six years. This, undoubtedly, is one reason why physicians still prescribe meprobamate more often than any other tranquilizer in the world.

Clinically proven in over 750 published studies

1. Acts dependably — without causing ataxia or altering sexual function
2. Does not produce Parkinson-like symptoms, liver damage or agranulocytosis
3. Does not muddle the mind or affect normal behavior

Miltown®
meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS® — 400 mg. *unmarked*, coated tablets; and in *sustained-release* capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

WALLACE LABORATORIES / *Cranbury, N. J.*

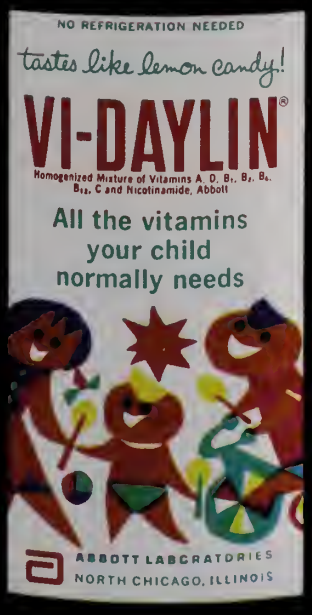
CM-6709



How do the lemons get in the Vi-Daylin?

Perhaps this should be cleared up once and for all. There are *no* lemons in Vi-Daylin. If you've ever tasted Vi-Daylin, this might surprise you. Certainly, it would surprise the youngsters. To most of them, Vi-Daylin is liquid lemon candy, and that's *that*. But if it's deception, it's sensible deception. You never have to badger the kids into taking their vitamins. Nice to know, too, that this matchless matching of candy essence and color elegance can be found in all the forms and formulas of Vi-Daylin.

VI-DAYLIN—Vitamins A, D, B_1, B_2, B_6, B_{12}, C, and Nicotinamide, Abbott; VIDAYLIN-M—Homogenized Mixture of Vitamins with Minerals, Abbott; VI-DAYLIN-T—High Potency Multivitamins, Abbott.



Remember, there are *three* liquid formulas: Vi-Daylin, ViDaylin-M® (with minerals), and ViDaylin-T® (therapeutic). And if patients get a little owlly and won't touch *anything* in a spoon, you can give them the new Chewable (please see back of this page).

Each delicious, 5-cc. teaspoonful of Vi-Daylin supplies the following proportions of the Minimum Daily Requirements of:

		MDR (Children)	MDR (Infants)
Vitamin A	0.9 mg. (3000 units)	1	2
Vitamin D	10 mcg. (400 units)	1	1
Thiamine HCl (B_1)	1.5 mg.	2	6
Riboflavin (B_2)	1.2 mg.	1⅓	2
Ascorbic Acid (C)	50 mg.	2½	5
Nicotinamide	10 mg.	1⅓	2

Also supplies cyanocobalamin (B_{12}) 3 mcg. and pyridoxine Hydrochloride 1 mg.

209039A

Abbott Laboratories
North Chicago, Illinois

Gentlemen,

My family enjoys your chewable vitimans. It seems like we can not get enough of your vitimans. My sister enjoys your vitimans so much that she ask for more but cannot have no more. I like them because my mother does not have to worry about scolding us when taking it. Its good because you don't have no worries about something falling on the floor. If you kept on making these vitimans all the worlds children would be happy again. Now I would like to know whether I may have any information on the Middle West. You see my class and I are studying it. So if the information can be given I thank you very much.

"...all the worlds children would be happy again."

(an unsolicited testimonial from an actual letter)



ABBOTT



For peptic ulcer gastric hyperacidity and gastritis...

In year-long study on peptic-ulcer patients

New Creamalin®
Antacid Tablets

*"...faster in onset of action...and for a longer period"**

"Clinical studies in 85 patients with duodenal ulcer ...confirmed the superiority of the new preparation [new Creamalin] over standard aluminum hydroxide preparations, in that prompt relief was achieved and maintained throughout the period of observation."*

Patients were followed for about one year.

New Creamalin promotes ulcer healing, permits less frequent feedings because it is so long-acting. Heartburn and epigastric distress were "...easily and adequately controlled...."* New Creamalin has the therapeutic advantage of a liquid antacid with the convenience of a palatable tablet. *It does not cause constipation.*

Each new Creamalin tablet contains 320 mg. of specially processed highly reactive dried aluminum gel (stabilized with hexitol) with 75 mg. of magnesium hydroxide. Minute particles offer a vastly increased surface area.

Dosage: Gastric hyperacidity—from 2 to 4 tablets as needed. Peptic ulcer or gastritis—from 2 to 4 tablets every two to four hours. *How Supplied:* Bottles of 50, 100, 200 and 1000.

Now also available—New Creamalin Improved Formula Liquid. Pleasant mint flavor—creamy pink color. Stabilized reactive aluminum and magnesium hydroxide gel (1 teaspoon equals 1 tablet). Bottles of 8 and 16 fl. oz.

Creamalin, trademark reg. U.S. Pat. Off.

*Schwartz, I. R.:
Current Therap. Res. 3:29, Feb., 1961.

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WITH YOUR
ENCOURAGEMENT
AND
DEXEDRINE®
brand of dextro amphetamine
SPANSULE®
brand of sustained release capsules

she's losing weight

'Dexedrine' *Spansule* capsules not only control appetite all day long, but at the same time encourage normal activity. This is particularly important because overweight patients are often inactive. In such patients 'Dexedrine' overcomes lethargy, helps renew their interest in doing things—not just eating.

PRESCRIBING INFORMATION

INDICATIONS AND DOSAGE: For the following indications, the recommended daily dosage is one or two 'Dexedrine' *Spansule* capsules, usually taken in the morning: control of appetite in weight reduction; depressive states; alcoholism. In narcolepsy, the recommended daily dosage is up to 50 mg. of 'Dexedrine' by 'Spansule' capsule on arising.

SIDE EFFECTS: Insomnia, excitability and increased motor activity are infrequent and ordinarily mild.

CAUTIONS: Should be used with caution in patients hypersensitive to sympathomimetic compounds; in cases of coronary or cardiovascular disease; and in the presence of severe hypertension.

CONTRAINDICATIONS: Hyperexcitability; agitated pre-psychotic states.

SUPPLIED: 5 mg., 10 mg. and 15 mg., in bottles of 30. (Each capsule contains dextro amphetamine sulfate, 5 mg., 10 mg., or 15 mg.)

Prescribing information adopted January 1961.

Smith Kline & French SK&F *Laboratories*



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in the wide middle region of pain

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(Salts of Dihydrohydroxycodeinone and Homatropine, plus APC) TABLETS

fills the gap between mild oral and potent parenteral analgesics

■ acts in 5-15 minutes ■ relief usually lasts 6 hours or longer ■ constipation rare ■ sleep uninterrupted by pain

Literature on request

Endo®
ENDO LABORATORIES
Richmond Hill 18, New York

AVERAGE ADULT DOSE: 1 tablet every 6 hours. May be habit-forming. Federal law allows oral prescription. *Also Available:* Percodan®-Demi: the complete Percodan formula, but with only half the amount of salts of dihydrohydroxycodeinone and homatropine.

Each scored, yellow Percodan* Tablet contains 4.50 mg. dihydrohydroxycodeinone HCl, 0.38 mg. dihydrohydroxycodeinone terephthalate (warning: may be habit-forming), 0.38 mg. homatropine terephthalate, 224 mg. acetylsalicylic acid, 160 mg. acetophenetidin, and 32 mg. caffeine.

*U.S. Pat's. 2,628,185 and 2,907,768



Thanks to 135 tiny "doses" throughout the

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night, the arthritic wakes up comfortable



Morning stiffness may be reduced or even eliminated as a result of therapy with the only steroid in long-acting form. And the slow, steady release of steroid makes it possible in some cases to reduce the frequency of administration and/or the total daily steroid dosage.

Medrol* Medules*

Each hard-filled capsule contains Medrol (methylprednisolone) 4 mg. Also available in 2 mg. soft elastic capsules.

Supplied in bottles of 30 and 100.

Upjohn

The Upjohn Company, Kalamazoo, Michigan

Reminder advertisement.
Please see package insert for detailed product information.

If you have patients on a cholesterol depressant diet, this will be welcome news:

General Mills is now making available, through grocery stores, a Safflower Oil which is totally acceptable in the diet, and which is priced reasonably.

SAFF·O·LIFE
Safflower Oil



As you know, Safflower Oil is higher in poly-unsaturates and lower in saturated fats than any other type of readily available vegetable oil.

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For Bronchial Asthma

EACH TABLET CONTAINS

Aminophylline	2 grains
Ephedrine HCl	¼ grain
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A combination of the most widely recognized drugs for the treatment of asthma . . . . compounded for maximum absorption and balanced action, and buffered for tolerance

Dispensed in bottles of 100 and 1,000 tablets

WM. P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA

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FINANCIAL Protection for Yourself!

Every day, *you* come face to face with disability. You know first-hand the high costs of hospital confinement. Though you're well aware of the tragedy affecting others, *what happens when YOU become the victim?* How would hospital confinement or disability *affect YOU financially?* Are your savings adequate to pay *long-term* hospital expenses as well as your *continuing* office expenses? The approved Program of The Medical Society of Virginia will help you meet these obligations. Prescribe this protection for yourself . . . today!

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This plans pays 100% of Hospital Room & Board and Hospital Miscellaneous Expense PLUS 75% of in-hospital Nurse Fees—after the selected Deductible Amount has been applied—up to $10,000 overall maximum benefit for expenses incurred within 3 years of any one accident or sickness. Applies to *each* insured Member and *each* covered member of his family.

You may continue the coverage to ANY AGE (beginning with age 70, deductible must be $500) and have a *choice of 3 deductibles* to assure the "right" protection at the "right" cost for YOU!

APPROVED BY THE MEDICAL SOCIETY OF VIRGINIA

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Professional Overhead Expense

This plan pays covered Office Expenses—Rent, Employees' Salaries, etc.—when you are totally disabled by injury or sickness, whether you're house-confined or not! You select *how much* protection you need ($200 to a maximum $1.000 a month), also *when* benefits begin (15th or 31st day of disability). Payments are made *directly to you* and can continue as long as *15 months.*

It's logical, it's practical . . . and businesslike, for the low premiums *do not increase* as you grow older and are even *tax-deductible!*

HAVE YOUR NURSE PHONE US COLLECT—DIAMOND 4-5000—for complete details about this much-needed protection for which hundreds of Virginia doctors have already enrolled. We will gladly supply additional information or an enrollment application. There is no obligation and no solicitor will call. **MAY WE HEAR FROM YOU TODAY?**

DAVID A. DYER, Administrator
Medical Arts Building Roanoke, Virginia



"opened nose clear to the ears"[1]



This was how one patient described the nasal decongestant action of Dimetapp Extentabs. How would *your* patients describe it? From the first tablet, Dimetapp Extentabs provide prompt and prolonged relief from the stuffiness, drip and congestion of upper respiratory conditions, with exceptional freedom from side effects. The reason is in the formula: the potent antihistamine with side effects as few as placebo,[2] DIMETANE® (brompheniramine maleate, 12 mg.) and two outstanding decongestants, phenylephrine HCl (15 mg.) and phenylpropanolamine HCl (15 mg.)...all in dependable, long-acting Extentab form.

NEW DIMETAPP ELIXIR (one-third the Dimetapp Extentabs' formula in each 5 cc.), for conventional t.i.d. or q.i.d. dosage in a palatable, grape-flavored vehicle.

References: 1. Clinical report on file, Medical Department, A. H. Robins Co., Inc. 2. Schiller, I. W., & Lowell, F. C.: New England J. Med. *261*:478, 1959.

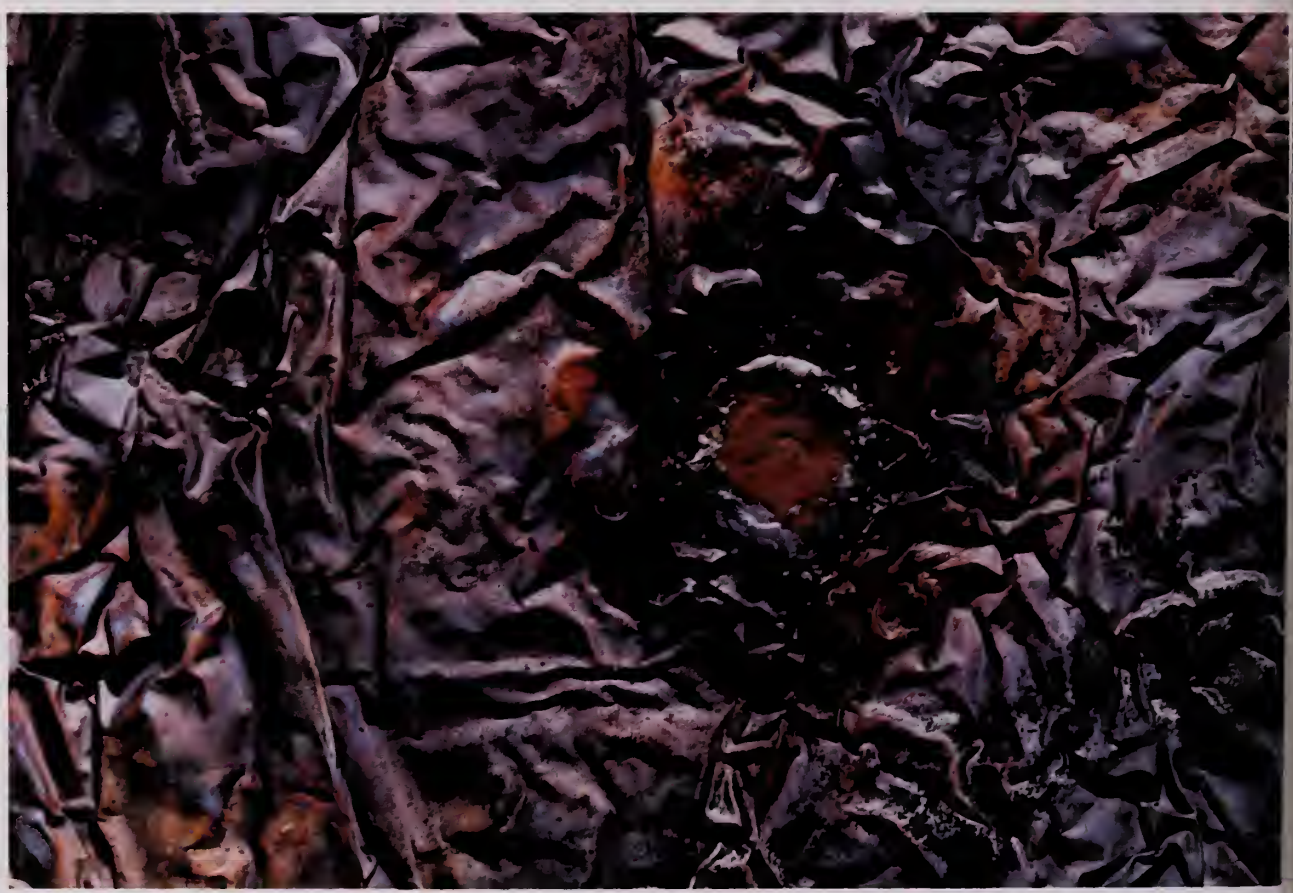
for nasal decongestion **Dimetapp® Extentabs®**

in sinusitis, colds, u.r.i., up to 10-12 hours' clear breathing on one tablet

PHARMACEUTICALS RESEARCH

A. H. ROBINS CO., INC., RICHMOND 20, VA.





The illustration: To dramatize the pain and trauma and healing of the peptic ulcer, our photographer burned a "lesion" into crumpled metal with a blowtorch and photographed it, then repaired the damage and rephotographed the result — the "healed" ulcer.

ulcer under repair

"What results can I expect in my ulcer patients?" Shown below is a tabulation of 795 ulcer patients, reported by 69 investigating physicians, in which glycopyrrolate was the anticholinergic employed. They represent a cross section of ulcer patients of all ages, both ambulatory and hospitalized, under various regimens, from all sections of the country.

Note the pattern of results. Robinul showed an "excellent" or "good" response in over 83% of patients, and Robinul-PH provided similar results in 81%.

As for side effects, these often troublesome extensions of anticholinergic action such as dry mouth, blurred vision, etc., were evaluated as "moderate-to-severe" in only 6.7% of a total of 1705 patients in preliminary investigative studies, 795 of whom are the ulcer cases tabulated here.

We invite you to try Robinul in your own practice. We believe you will find it one of the most effective agents you have ever used for the management of the ulcer patient.

Robinul® (formerly Robanul)
Each tablet contains glycopyrrolate, 1.0 mg.

Robinul®-PH (formerly Robanul-PH)
Each tablet contains glycopyrrolate, 1.0 mg.; and phenobarbital (¼ gr.), 16.2 mg.

Robinul® at work

Brand of glycopyrrolate, Robins

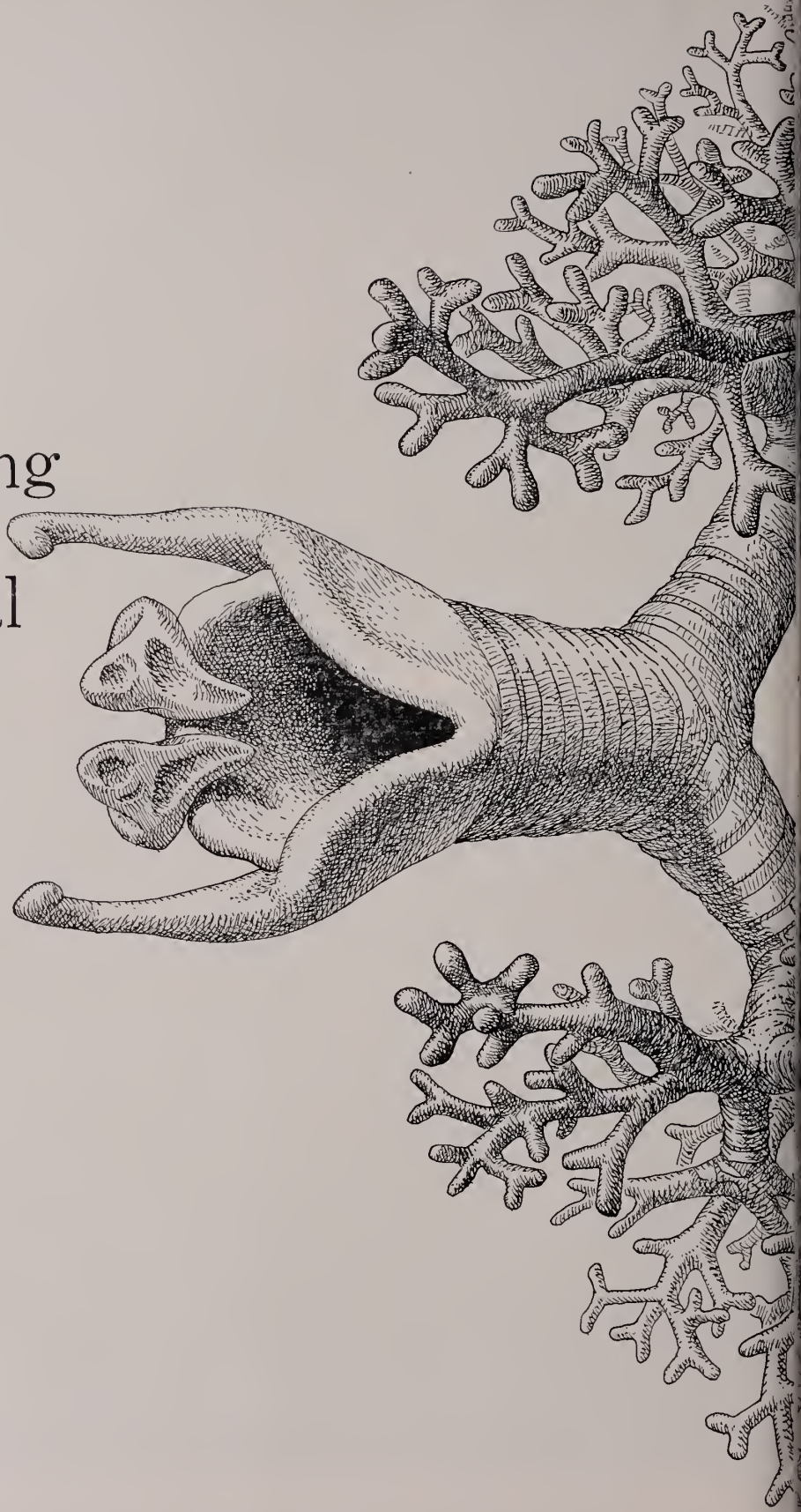
results with Robinul and Robinul-PH in 795 ulcer patients, from 69 clinical investigators*

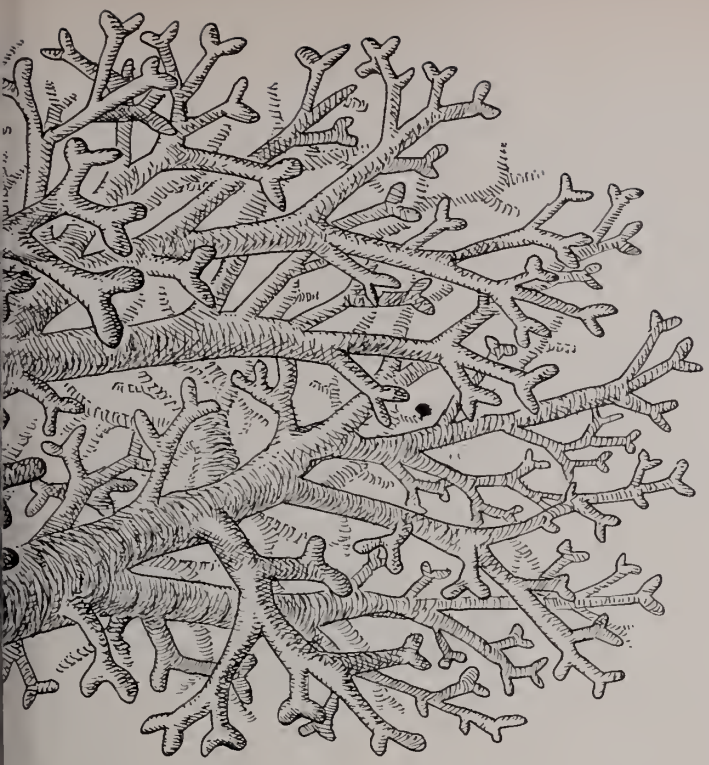
DIAGNOSIS	ROBINUL					ROBINUL-PH				
	*No. Patients	Excellent	Good	Fair	Poor	*No. Patients	Excellent	Good	Fair	Poor
Marginal Ulcer	11	3	3	3	2	1	0	1	0	0
Pyloric Channel Ulcer	6	3	1	0	2	2	1	1	0	0
Pyloric Ulcer	4	2	1	1	0	1	1	0	0	0
Gastric Ulcer, bleeding	3	1	2	0	0					
Gastric Ulcer	48	31	11	1	5	12	5	7	0	0
Gastric Ulcer, penetrated	1	0	1	0	0	1	1	0	0	0
Gastric Ulcers, multiple	1	1	0	0	0					
Duodenal Ulcer	494	220	195	48	31	99	41	38	13	7
Duodenal Ulcer, bleeding	38	19	15	3	1	2	1	0	1	0
Duodenal Ulcer, obstruction	13	4	3	1	5					
Duodenal Ulcer, perforated	5	2	1	0	2	6	0	3	1	2
Gastric and Duodenal Ulcer	4	2	2	0	0					
Peptic Ulcer, unspecified	25	19	4	0	2	18	8	7	2	1
TOTALS	653	307	239	57	50	142	58	57	17	10
		83.6%					81.0%			

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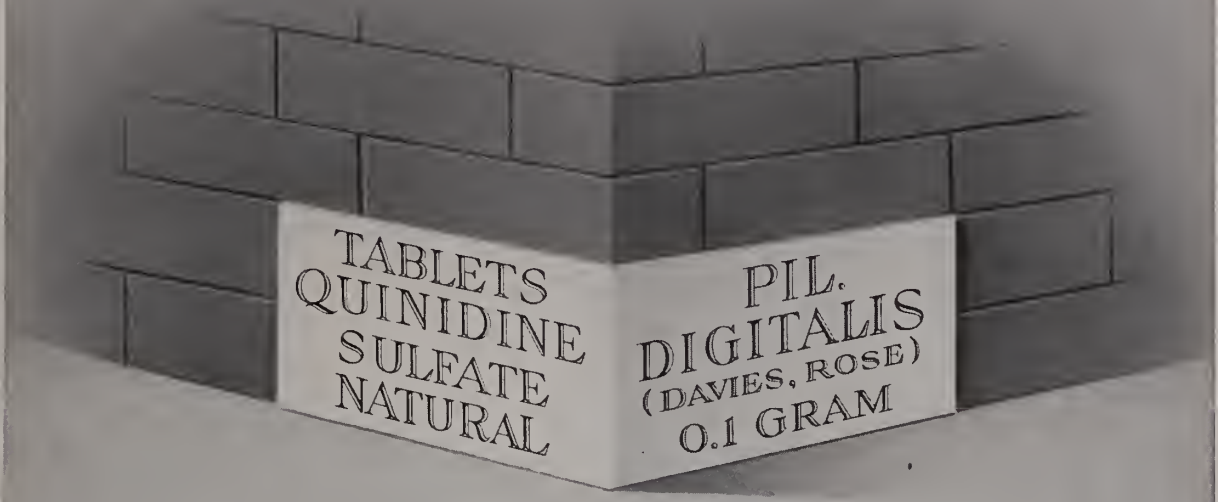
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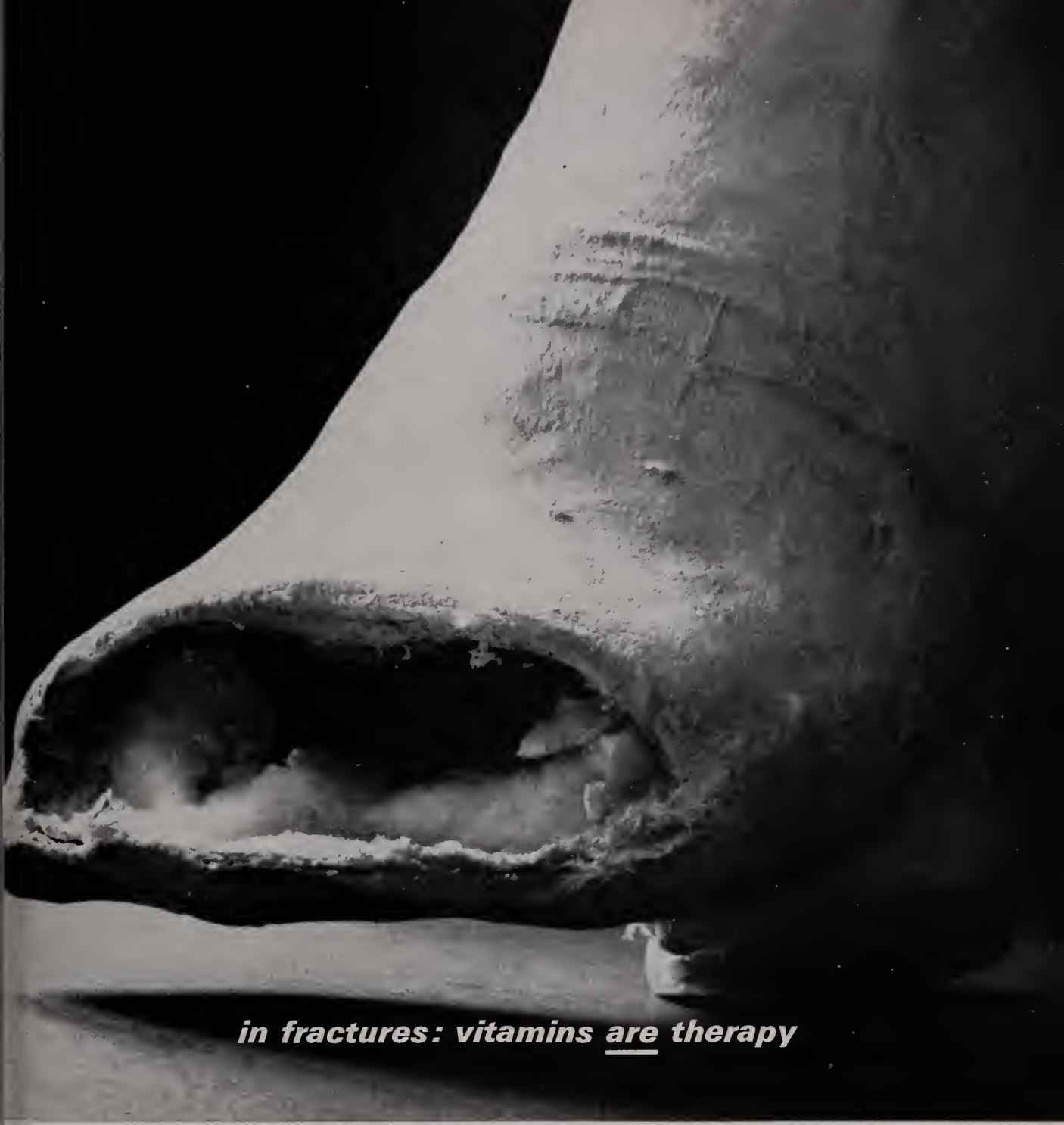
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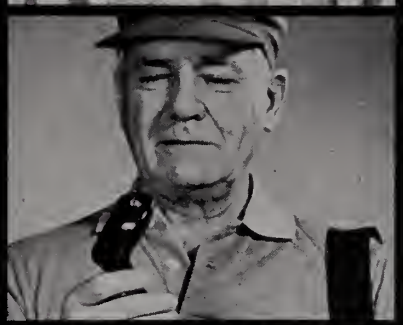
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The Virginia
MEDICAL MONTHLY

September, 1962
Vol. 89, No. 9
Whole No. 1324

Guest Editorial....

The Physician's Interest in Vocational Rehabilitation

IN READING the annual report of the State Vocational Rehabilitation Service released a few months ago for fiscal year 1960-61, one is impressed by the number of practicing physicians in the Commonwealth participating in this endeavor and the growing interest in rehabilitation matters on the part of physicians in general. Parts of this report are of special interest.

During the year, 3,239 citizens were rehabilitated to employment. Between 800 and 850 of the 3,500 plus physicians practicing in the Commonwealth had an active part in the handling of these clients in one way or another during the period of rehabilitation. The contribution of these physicians should not be overlooked. These patients could not return to their former employment and were usually plagued by that situation's camp follower, economic problems, and any fees collected from the State were at least one-half, or less, than the normal; yet one-fourth or more of the physicians in the State gave willingly and interestedly of their time in assisting these people to be rehabilitated.

Referrals are made to the Vocational Rehabilitation Service by interested parties or agencies. During the past year physicians made more referrals than came from any other source, with hospitals and health agencies a close second. Public welfare, schools and others fell well behind. In comparing the referrals during the last fiscal year with some years past, there is a very decided shift from official agencies to hospitals and private practitioners. This shift in referrals authenticates the growing interest in rehabilitation on the part of the practicing physician which has been apparent for some time. In addition, it points up clearly the part physical restoration is now contributing to the total rehabilitation picture.

When the State-Federal program of vocational rehabilitation was initiated in the early twenties, physical restoration played a minor part and was virtually limited to furnishing prosthetics. With the coming of World War II, two factors gave vocational rehabilitation its greatest growth stimulus: first, the overwhelming need for persons in the labor force, and second, and this I think had a more pronounced and more lasting influence, was medicine's break-through in the handling of infections. In 1943 the Barden-LaFollette act extended the basic act of 1920 to include physical restoration. In 1945 the State Vocational Rehabilitation Service initiated its first medical advisory committee, under the then

and present Chairman, Dr. Roy M. Hoover of Roanoke, with four of its original members still active on the Committee. This Committee is also The Medical Society's Committee on Rehabilitation. Since establishment the Committee has actively advised the Vocational Rehabilitation Service on medical policies and has reported back to the State Society on matters of interest.

Although cases accepted for vocational rehabilitation are usually picked up after the acute condition has subsided, the origin of disability will indicate the medical problems encountered. The origin of disability of the 3,239 rehabilitated was as follows: employment accidents, 215; motor vehicle accidents, 71; other accidents, 436; disease, 2190; congenital, 327. The nature of disability was broken down into many categories among which were the following: upper extremity, lower extremity, amputated or disabled, 734; hemiplegia, 17; paraplegia, 17; quadriplegia, 7; arthritis, generalized, 40; partial vision, 87; deaf or hard of hearing, 105; impaired speech, 23; impaired heart, 100; epilepsy, 41; diabetes, 16; arrested pulmonary tuberculosis, 100; arrested mental illness, 126; mental retardation, 145. During the decade 1950-1960, the number rehabilitated increased approximately three-fold, from 1,449 to 3,239. Also during this same period, because of improved methods of handling, and especially because of the establishment of the Woodrow Wilson Rehabilitation Center, the severity of disability among clients accepted for rehabilitation has increased many-fold. Just a few years ago many of the above categories of disability would have been classified as non-feasible for rehabilitation endeavors. With improved methods, they were rehabilitated. Much progress must still be made, as all of us realize. With the improvements in medicine and surgery which we are experiencing at this time the future can hold but one thing, and that is the saving of many more lives at the cost of creating a corresponding number of disabled persons.

For us as taxpayers, the most striking part of this report was the cost and returns of rehabilitating these 3,239 citizens. The cost was $1,846,403 with an estimated first year's aggregate earning of $5,617,736. I wonder where else our tax dollars pay such handsome dividends. There is no accurate estimate of the community value that can be placed on family units restored, children educated and the support of 6,167 dependents.

A. Ray Dawson, M.D.

Veterans Administration Hospital
Richmond, Virginia

Editor's Note: Dr. Dawson is President of the Virginia Rehabilitation Association.

Unusual Poisonings in a State-Wide Medical Examiner System

SIDNEY KAYE, Ph.D.
GEOFFREY T. MANN, M.D.
Richmond, Virginia

Poisoning, accidental or intentional, is still unfortunately a common cause of death. Occasional cases will go undetected unless the attending physician and medical examiner maintain a high index of suspicion.

VIRGINIA covers an area of about 41,000 square miles and extends from the Atlantic ocean westward to include both the Appalachian and Allegheny mountain ranges. Its population is about four million. This is a heterogeneous population including heavy and light industry of all sorts with much of it still in agriculture. In our State there are approximately 30,000 deaths a year, of which 8,000 are investigated by medical examiners. Of these investigations, we find about 200 deaths a year due to poisonings.

Most of these poisons are of a common nature. As a matter of fact, about 80 per cent of the total is due to alcohol, carbon monoxide and barbiturates.

The remainder consists of arsenic, mercury, strychnine, nicotine, cyanide, salicylates, drugs, chemicals and whatever else one is exposed to accidentally or intentionally. One must be constantly alert to the innumerable possible agents that one could be poisoned with, lest the rare poisonings or the unusual circumstances be overlooked.

A good history is often invaluable in pursuing the investigation. For example: The following case, because of circumstances, was quickly completed.

A young girl was in church in mid afternoon. The only other person present was an elderly lady in the balcony who saw the young girl mixing two paper cups she had in her hand and drink one. Regarding this as somewhat peculiar behavior in church, the lady hurried down the stairs only to witness the unfortunate girl's death. After investigation by a medical examiner, an autopsy was performed. The rapidity of death suggested cyanide or nicotine. The almond odor of the stomach contents and residue in the container both suggested cyanide. This was confirmed by tissue analysis which indicated the presence of large amounts of cyanide.

The next case was somewhat more complex. A young, healthy single female was found dead at home. The cause of death was reported by her physician as lead poisoning and, thus, the case came under the investigation of the medical examiner. An autopsy was performed and revealed a recent abortion. The appearance of the uterus suggested an abortifacient.

A distribution study of the liver, brain, and uterus was made:

Liver:	8 mg % lead
Brain:	1.2 mg % lead
Uterus:	22 mg % lead

Gross examination of the uterus showed it to be necrotic.

Read before the Second International Meeting in Forensic Pathology and Medicine. New York City, September 1, 1960.

Chief Medical Examiner's Office, State Health Department, Commonwealth of Virginia, and the Department of Legal Medicine, Medical College of Virginia.

The portal of entry was unquestionably the uterus for the purpose of abortion.

The importance of a complete investigation as to the circumstances surrounding death is illustrated in the following cases of meprobamate poisoning. Meprobamates have had widespread use as tranquilizing agents said to be due to their effective action and relative low toxicity. Early reports by Sellers emphasized that even massive doses (40 grams) may be without serious result. While deaths due to meprobamate are rare, they do occur. We have investigated two deaths attributed to this drug.

A 43 year old woman under psychiatric treatment had threatened to commit suicide three times within the year before death. During the evening prior to her death she had a violent argument with her husband. Her mother stated that before retiring at 9 p.m. she went to the kitchen and got a bottle marked "Equanil" and took it to her bedroom. The bottle was about one-half full and contained 30 tablets (12 grams). The empty bottle was in the bedroom in which the body was found the next morning. An autopsy was performed, and tissue was sent to the laboratory with the above history.

The majority of the screening techniques gave negative results. However, in the alkaline-ether group a crystalline residue was recovered. The circumstances suggested strongly the ingestion of meprobamate.

The other was a 25 year old woman with a previous history of a psychiatric disorder. On the night in question, she came out of the bathroom stating that she had just taken fifty 400 mg. tablets of Miltown, the entire bottle of a recently acquired prescription. Shortly after, she stated that she was only joking. Later in the evening her mother heard her snoring loudly. She was found dead in bed the next morning. Estimated time of death was between midnight and 2 a.m. Autopsy in both cases revealed only severe hypoxia. Tissue was submitted for toxicology.

These women weighed 110 and 125 pounds (50 and 57 Kg) respectively.

In case one, 12 grams was the estimated dose.

In case two, 20 grams was the estimated dose.

(1)	Liver:	0.030	gm %
	Stomach:	0.80	gm %
	Urine:	0.034	gm %
(2)	Liver:	0.022	gm %
	Urine:	0.083	gm %
	Stomach:	0.39	gm %

The next case is one of a young physician who died very soon after being taken into custody by four police officers. In Virginia, deaths occurring in custody are investigated by medical examiners. The necessity for this is obvious.

The incident that led to his arrest occurred the previous night. He was observed driving his car at excessive speed in town. He had a previous conviction for a similar offense. Two local police officers gave chase and had him cornered on the side of a mountain. One officer got out of his car to talk with him, when he, while turning the car about, almost hit the officer who jumped aside to let him pass. They no longer pursued him that night. The next morning the local police accompanied by two State Troopers called at his office, knocking at his door. He peered out and said, "Wait a moment." In about five minutes he reappeared at the door wiping his mouth with a towel which he threw on the floor. The officers explained that they were arresting him and led him to their car. Very shortly thereafter while en route, he became exceedingly drowsy, finally slumping to the floor of the car in a coma. He was taken to the nearest physician who found that he was dead.

An autopsy indicated no specific cause of death. Organs were submitted for toxicological studies.

Routine analysis for the common poisons was made; and large amounts of chloral hydrate were found, specifically 30 mgs/% in the blood and massive amounts in the stomach contents. This was unusual since chloral hydrate is not in common use in

Virginia. An examination of the decedent's office indicated the source of the chloral hydrate. In his dispensary was a one gallon pharmaceutical container of concentrated chloral hydrate, 120 grains to the ounce combined with bromide, 120 grains to the ounce, colored green with a vegetable dye and flavored with peppermint. Samples of this, with a green tinted towel found on the floor, were analyzed. The organs were analyzed for bromide, and this was also present. The towel contained traces of chloral hydrate and bromide. The cause of death was given as chloral hydrate poisoning, and since the decedent was a physician who must have known the effects of such a concentrated drug in massive doses, the death was undoubtedly a suicide.

In spite of all that has been written and said about arsenic, it is still a common method of homicide. We detect a number of cases each year, and we are not so naive as to presume that none escape us. This is unfortunately exemplified by the following case.

The physician followed a down-hill case of gastro-enteritis for several days until the patient expired. Since he was not sure of the cause of the gastro-enteritis, he referred the case to a medical examiner for investigation and certification. An autopsy revealed no specific cause of death. Tissues were submitted routinely to our laboratory. Arsenic was found in large amounts. Upon further investigation, it was shown that the decedent was the fourth husband who had died within recent years, all with gastro-enteritis. Upon exhumation of two previous husbands, it was shown that they also had died from arsenic. When analyzing exhumed bodies for arsenic, it is necessary to take special precautions to rule out possible contamination from the soil, casket, artificial flowers or any other substance in contact with the body. Embalming fluid by statute cannot contain arsenic, which is helpful since it would be almost impossible to obtain any original embalming fluid.

Fortunately, poisoners have a habit of repeating their successes as was the case here. If success had not gone to her head, undoubtedly she would have escaped detection of her three previous murders.

It will not come as a surprise to anyone that in Virginia unexplained gastro-enteritis as a certified cause of death is no longer acceptable without an autopsy.

The motivation of homicide by arsenic is extremely variable.

In one case a young son slipped some arsenic into his mother's jelly because she would not give him money to go to the movies.

In another, the boyfriend put some arsenic into the 7 year old son's orange pop drink because he interfered with his love life in a one room shack.

It cannot be overemphasized that one must constantly think of arsenic poisoning in obscure deaths.

Finally, the bizarre pictures produced by carbon monoxide poisoning may be most misleading.

Carbon monoxide is the second most frequent cause of death due to poisoning. Even though it is usually recognized, it can easily be overlooked on the gross inspection of the body and the scene. Fortunately, the screening tests are so simple that it should be done on all deaths where the cause is not known, even though it may appear unlikely to be a carbon monoxide type of death.

All deaths occurring in a fire should be thoroughly investigated, which always includes testing for carbon monoxide. As a result, an occasional masquerade is revealed where death occurred prior to the fire by other means.

Although the history and background of each case is an exceedingly important part of an investigation, one must take care in the interpretation of what is found.

A young woman recently separated from her husband, despondent, and drinking was found in bed in her locked apartment. On her bedside table was an almost empty bottle of Pentobarbital. At first appearance and with the history, it was presumed to be a suicide with barbiturates or perhaps an ac-

cident with the combined action of alcohol and barbiturates. It was neither. There were no traces at all of either of these agents. When a general unknown screening was undertaken, large amounts of carboxyhemoglobin were found in the blood (75%). At autopsy the prosector failed to recognize any pink discoloration of the tissues.

The apartment was serviced by natural gas containing no carbon monoxide.

Each utility was tested and the refrigerator was found to be defective, and products of incomplete combustion including carbon monoxide were being released into the atmosphere at a constant low rate.

The laboratory determination of blood is rapid, reliable, and requires very little blood.

The effects of carbon monoxide poisoning may be most misleading. In the early stages of poisoning, an individual may be in a mental state of confusion resembling in part the actions of a drunken person. His actions may be without logic or reason. Because of this, sometimes the suspicion of murder and/or suicide has been raised in these cases because the police and medical examiner did not associate the confusion of the scene as a possible carbon monoxide poisoning.

Carbon monoxide can occur in the presence of what appears to be an adequate supply of oxygen. We have had a number of unfortunate examples of this, including a number of babies that have died while sleeping in the back of automobiles being continuously driven over long periods of time. The mechanism in part includes a smaller blood volume, increased respiratory rate and an increased oxygen demand. Similar cases have been seen in relief truck drivers sleeping in the rear of the cab compartment. We have seen one case where a man died as a result of carbon monoxide poisoning from a faulty exhaust in an open canopy boat while slowly cruising on a windless day in the Chesapeake Bay.

We have attempted to show that the art of the Borgias is still very much with us and is likely to continue to be. No matter the make-up of the community, the easy availability of toxic material and the natural reluctance of the community and the physician to contemplate intentional poisoning will continue to make this form of mayhem attractive to those seeking to dispose of all and sundry. For the protection of the public, it is the duty of the practicing physician, the forensic pathologist, and the toxicologist to maintain a high index of suspicion, coupled with insatiable scientific curiosity.

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The Unexpected in New Drug Research

The most challenging problems in the field of drugs center mainly on diseases which are not yet clearly understood. The research efforts required for their resolution will entail basic understanding and a close integration of many disciplines. The problems still with us are difficult and complex. No one can state with certainty what the future holds. Indeed, in the field of research and new products we are often puzzled—or even astonished—at the least expected point.—Dr. Ernest H. Volwiler, former president, Abbott Laboratories, to Senate Subcommitee on Antitrust and Monopoly, Dec. 9, 1961.

Prolapse of the Urethra in Female Children

WILLIAM E. JOSEY, M.D.
ROSS KAZAKIS, M.D.
Norfolk, Virginia

Prolapse of the urethra, an unusual condition seen most often in young girls, can be cured by surgical excision.

PROLAPSE OF THE URETHRA is of uncommon occurrence and apparently peculiar to females.[1] Although occasionally observed in the older age groups, especially in very elderly women, it is probably encountered most often in young prepubertal girls, presumably due to a congenital weakness of the tissues. In these young girls the edematous, inflamed, and often infarcted protruding mucosa may present an alarming appearance to one not familiar with the condition.

Case Report

The patient was an 8-year-old Negro girl who was admitted to Norfolk General Hospital on March 18, 1959. Three days prior to admission she fell while climbing on "monkey bars" in her school playground. A few hours afterward she began to experience dysuria and bleeding from the vulvar region. During the following two days these symptoms became worse and she was referred to this hospital. Examination revealed prolapse of the urethral mucosa (Fig. 1), which was edematous, congested, and moderately tender. The mass was purplish in color, with beginning infarction. Urinalysis of a voided specimen was normal except for the presence of red blood cells. The patient was taken to the operating room where under general anesthesia the mucosa was excised and a Foley catheter left in the bladder. On the fifth postoperative day the catheter was removed and the child voided without difficulty thereafter. She was discharged on the seventh postoperative day. When seen two weeks later the urethral meatus was well healed. The mother was contacted two years later and reported that there had been no urinary difficulty since the operation.



Fig. 1. Prolapse of urethra in 8-year-old child.

Discussion

The case presented is a typical example of urethral prolapse in young girls. As indicated in the paper of Abrams and Lewis,[2] there appears to be a racial predilection, the reported cases being predominantly Negro. It seems probable that the underlying cause is an inherent weakness in the structure of the urethra. As in this case, a history of a fall or of direct trauma to the region may sometimes be elicited. Violent coughing or straining has also been incriminated.

The treatment that probably has been most often employed is simple excision, as recommended years ago by Howard A.

From the Department of Obstetrics and Gynecology, Norfolk General Hospital.

Kelly.[3] Although more radical procedures have been advocated, the results with excision and suturing have generally been satisfactory. As alternative to knife excision is removal by cautery without suturing, as advocated by Moffett and Banks.[4] These and other authors have favored the use of sitz baths for several days preoperatively, feeling that by this means inflammation would be reduced and a clearer line of demarcation established between normal mucosa and the inflamed prolapsed mucosa.

The senior author has managed a total of four cases, including the one herein reported, by knife excision without preoperative sitz baths or other local treatment, and results have been uniformly good. The technic of Everett,[3] as taught at the Johns Hopkins Hospital, was used in all four. In this method two untied sutures of fine atraumatic catgut are used to transfix the base superiorly and inferiorly, thus preventing retraction of the mucosa. The prolapsed mucosa is then removed by circular excision distal to the sutures. The midportion of each suture may then be withdrawn from the meatus and cut, leaving a suture at four quadrants to be tied, thus approximating the cut edge of the remaining urethral mucosa to the mucosa of the adjacent vestibule. An indwelling catheter is left in place for a few days postoperatively. This method has the advantages of simplicity and immediate application. According to Zager,[5] no recurrences have been reported in young girls following surgical treatment.

Summary

A case of urethral prolapse in an 8-year-old girl has been presented and the condition briefly discussed. Treatment by immediate knife excision and suturing was described and is advocated as the procedure of choice.

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Norfolk, Virginia

The Revolution in Drug Development

The important role that basic research in the pharmaceutical industry has played in the development of new drugs is evident. This revolution in drug development, which has taken place over the past 30 years, will accelerate further as basic research is increased by the pharmaceutical laboratory. The rate of progress will also increase, for the time interval between the discovery of basic knowledge and its application is steadily decreasing and will shorten further.—Basic Research in the Pharmaceutical Industry: Victor A. Drill, M.D., *J. Indiana State Medical Association,* Jan. 1962.

Gradenigo's Syndrome

Report of a Case

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A case of Gradenigo's syndrome is reported. This combination of mastoiditis, pain in the temporal or parietal region, and paralysis of the abducens nerve was seen more frequently before antibiotics came into general use.

PROFESSOR GRADENIGO[1] first described this syndrome in a paper that he read before the International Congress of Otology at Bordeaux in August 1904. He described a syndrome consisting of acute otitis media accompanied or not accompanied by external suppuration and intense pain localized in the temporal or parietal region. In addition, paralysis or paresis of the abducens nerve on the same side was included in the syndrome. At this time, Gradenigo had seen six cases and in reviewing the literature, he collected 12 other cases and had reports of three cases from colleagues in Italy. Gradenigo postulated at this time that the abducens paresis was due to a circumscribed serous leptomeningitis localized about the tip of the pyramid. This infection had spread from the tympanum. In 1926 Sears[2] published an article reporting 26 unpublished cases, three being from his own practice and twenty-four from other otologists. Also in this article was included information on 145 other cases reported in the world literature from 1910 up until that time. Since Sears article there have been several sporadic reports in the otologic and ophthalmologic literature on this syndrome. Most of the more recent case reports have been in the foreign literature, however. This entity has become even more rare since the advent of antibiotics and since the resultant decrease in the incidence of uncontrolled mastoiditis.

The aim of this article is to report such a case.

Case Report

C. Y. was a 15-year-old white male who entered the University of Alabama Hospital on January 7, 1961, with a past history of right sided ear infection for the past four weeks. He had had some antibiotic treatment for this condition during that time. One week prior to admission to the hospital, the patient suddenly developed severe pain in the right eye. In addition, the patient noticed that when he looked to the right he saw double.

When admitted to the hospital, this patient was placed on the ENT service and was seen by the ophthalmologist by consultation. Ophthalmic examination showed a visual acuity bilaterally of 20/20 without glasses. The pupils were regular in size and shape and normally reactive. Rotations of the eyes showed that the right lateral rectus muscle failed to move the right eye beyond the midline. The patient had diplopia in the right lateral field of gaze. The fundi were normal bilaterally and the corneal sensitivities were considered normal bilaterally. No other abnormalities of the eyes were noted. Otologic examination revealed a perforated tympanum on the right side with a small amount of purulent drainage. X-rays on the date of admission showed the mastoids

to be clouded on the right side and normal on the left side. The patient was afebrile and his urine was normal. A white blood cell count was 10,400 with a normal differential cell count. A packed cell volume on the patient's blood was 42%. On January 8, 1961, under general anesthesia, the patient had a simple right mastoidectomy. A culture of the infected mastoid area grew E. Coli and an enterococci. Post-operatively this patient was placed on chloromycetin and penicillin and the mastoiditis cleared quickly so that on January 21, 1961, the patient was discharged home to be followed as an out-patient. During this entire time, this patient was afebrile. During this entire period, the abducens paresis on the right side persisted also. This patient was seen as an out-patient on June 27, 1961, and the abducens paresis was still present with diplopia in the right lateral field of gaze. The mastoid area was asymptomatic at this time.

Discussion

The abducens nerve passes under the petrosphenoid ligament and in a case of mastoiditis or localized meningitis in this area at the tip of the petrous bone, paresis of the



Fig. 1. This photograph shows inability of the patient to abduct the right eye on gazing to the right lateral field of gaze.

nerve occurs because of its proximity. The Gasserian ganglion and the seventh facial nerve lie close by also hence the explanation for the pain in the eye and face or a possible facial paresis in the syndrome. Some of these patients may also have photophobia and excess lacrimation. The corneal sensitivity may be reduced. Diplopia is usually the first sign to appear with paresis of the abducens. Sometimes meningitis and death used to occur. This syndrome is now more rare with the advent of antibiotics.

Summary

A case of Gradenigo's syndrome is presented and described and the syndrome discussed. It appears that there have been few of these cases reported in the ophthalmic literature especially and ophthalmologists should be familiar with this condition.

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Cancer Trends....

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Carcinoma of the Buccal Mucosa and Lower Gingiva

Carcinomas of the buccal mucosa and lower gingiva are discussed together because of their anatomical proximity, similar pathologic variations, clinical behaviour and similar ethologic factors. Upper gum lesions are generally grouped with carcinomas of the hard palate and are, therefore, excluded from this discussion.

Of one hundred and twenty-five primary oro-pharyngeal cancers treated by the Head and Neck Tumor Clinic since 1957, approximately twenty per cent have been gingival (20) or buccal (7) lesions. The disparity between this and the usually reported 10-15 per cent is related to the rural population we serve. Sixty per cent were males and the vast majority were white despite the large surrounding Negro population.

As prolonged exposure to sunlight is commonly associated with cancer of the lip, chronic irritation is so frequently associated with gingivo-buccal lesions that it can be considered the major cause. Rotten teeth, ill-fitting dentures, snuff and chewing tobacco are the agents most often incriminated. Leucoplakia is more frequent on the cheek mucosa than in any other place in the oral cavity and can often be found in association with buccal carcinoma.

Although cancer may arise anywhere on the gingival ridges or buccal surfaces, the commonest site is on the posterior one-third of the lower dental arch and on the mucosa adjacent to this masticating area. The central third of the dental arches is relatively immune to cancer except when it is secondarily involved by a contiguous lesion.

Pathology

Although sarcoma may arise in these areas, gingivo-buccal cancer is epidermoid in type and may present itself in one of three variations: verrucous, exophitic or ulcerating. The verrucous is usually superficial, well-defined, papillomatous and of low malignant potential—rarely metastasizing. Exophitic lesions commonly arise in areas of leukoplakia, spread more rapidly, may become necrotic, and will frequently invade contiguous bone. The ulcerative variety is rapidly invasive, may be well or poorly differentiated, and metastasizes early. Its margins are difficult to accurately determine.

The primary metastatic nodes most frequently involved are in the submaxillary triangle receiving the lymphatic coursing through the buccinator and across the periosteum of the mandible. Arterior lesions may involve the submental node and the retromolar cancers may also spread to the subdigastric chain.

Treatment

We are adamant in our treatment of all resectable epidermoid cancers of the oral cavity. Wide, sharp excisions of the primary with en-bloc formal neck dissections wherever feasible, is the treatment of choice. In buccal lesions we sacrifice the mandible with impunity, realizing that its resection provides necessary exposure, simplifies the closure, and removes the lymphatic pathways over the mandible. These far outweigh the functional and cosmetic advantages attending its salvage. Marginal resections of the

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mandible are considered hazardous in the treatment of gingivo-buccal cancer except in verrucous lesions where periosteal freedom is unquestionable. When there are palpable submaxillary lymph nodes associated with verrucous cancer, the upper neck flap is reflected, the nodes are excised and forwarded to the pathologist for frozen section interpretation. If all nodes are negative, the formal neck dissection is omitted, and the primary lesion is widely excised. The full thickness of the cheek, the parotid gland and



Fig. 1. Surgical specimen from 57-year old colored male with extensive epidermoid carcinoma, left lower gingiva. The mandibular condyle is at the lower left, the anterior margin of the mandible in the upper left with the lesion lying between. The contents of the neck are shown in the right half of the picture. (April 1955).

associated nodes are easily incorporated in the en-bloc excisional approach, if there is the slightest suggestion of extension to these structures.

In closing these often imposing defects, pharyngostomas are preferable to primary closure under tension or distorting the functional anatomy of the tongue by using it to close the mucosal defects. Split thickness skin grafts are used for mucosal replacement with discretion accepting the shrinkage and associated scarring. In all cases of full thickness cheek resections, we use local or distant flaps, preferably hairless, when employed for lining.

In spite of the inconvenience to the patient and the necessity for staged reconstruction, the creation of a pharyngostoma is a safety factor in most cases and is practically mandatory when previous radiation has rendered the local tissue unfit for recon-

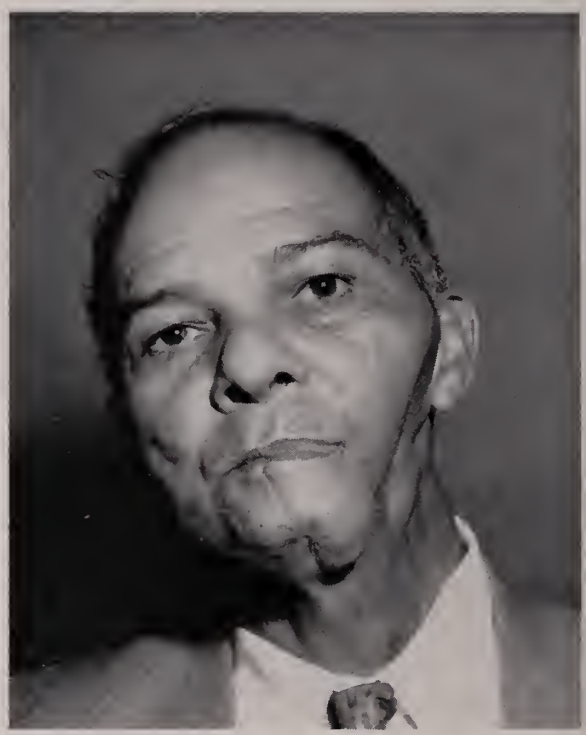


Fig. 2. One year following resection prior to insertion of bone graft. (May 1956).

structive purposes. The problems of oro-cutaneous fistulas, contamination of the neck flaps, hematomas, and wound disruptions are all predicted sequelae of closures under tension. Pressure dressings, suction catheters beneath the neck flaps, frequent blood transfusion, and the liberal use of tracheostomies are routinely employed.

Radiation is reserved for palliation where metastases or invasion can be demonstrated beyond the scope of a planned ablative procedure, or in the rare cases where surgery

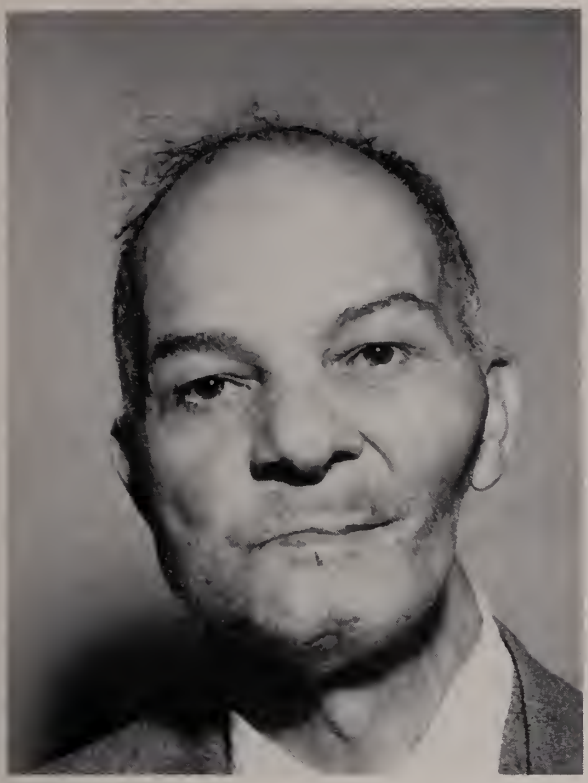


Fig. 3. After insertion of iliac bone graft. Seven year follow-up reveals no cancer. (April 1962).

is refused by the patient. Preoperative radiation in our experience does not reduce the tumor margins, thus providing resectability, but only serves to add confusion to the issue by injuring more adjacent tissue. Furthermore, the pathologic interpretation of the specimen is rendered more difficult. Reconstruction in a previously irradiated field is fraught with complications, including infection, poor wound healing, and avascular flaps prone to necrosis. Except in highly anaplastic, poorly differentiated lesions with demonstrated invasion into the pterygoid fossa, postoperative radiation is likewise to be condemned and is considered an admission of an inadequate surgical resection.

Such a surgical approach cannot be considered radical when dealing with cancer of the oral cavity. Compromises are tantamount to failure. Fortunately, despite the sacrifice of functional tissue, we can often restore these patients to a productive socially-acceptable existence, free of cancer.

Hair Spray Toxicity Questioned

Reports suggesting that the inhalation of hair sprays can cause a new lung disease were questioned in the August 18th Journal of the American Medical Association. Thesaurosis, the term used to describe the excessive retention of certain chemical elements in the lungs, has been attributed to heavy exposure to hair spray, according to Dr. G. W. H. Schepers, Wilmington, Del.

There are "many points of similarity" between thesaurosis and pulmonary sarcoidosis, a chronic infectious disease affecting the lungs. Sarcoidosis is "a great imitator of many diseases. It has been misdiagnosed before and probably will continue to confuse issues in the future."

Sarcoidosis is quite prevalent in the United States, and its manifestations in the lungs are often transient and occur with marked prevalence in women in their 30s and 40s. "On a statistical basis alone, it seems not unlikely, therefore, that pulmonary sarcoidosis will from time to time appear in women who use hair cosmetics abundantly since this practice is the current, well nigh universal vogue. It would seem that a more specific criterion should be found by means of which to differentiate between true thesaurosis and sarcoidosis coincidental to hair spray exposures."

The appearance of lung tissue, which forms the basis for a diagnosis of thesaurosis, is the same in many cases of sarcoidosis, including men who have not been exposed to hair sprays.

"In view of the close . . . similarities between sarcoidosis and certain examples of thesaurosis, the question is raised whether some cases of alleged thesaurosis may be instances of pulmonary sarcoidosis coincidental to exposure to cosmetic hair sprays."

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Mental Health . . . .

ROY J. WARD

Some Psychological and Psychiatric Implications in the Readjustment and Rehabilitation of Newly Blinded Adults

It is not uncommon, in the course of discussions on the subject of visual disability, for someone to use the phrase "the psychology of blindness" either in those exact words or in some similar phrases. Yet it is hard to ascertain from the speakers exactly what they mean by the phrase, how they define it, or precisely what is included in the phrase. The fact is that very seldom is such a term used by persons professionally trained to provide services to blind persons, or even by those who have had extensive contact or experience with blind persons. I believe there is a sound reason for this avoidance by those who know blind persons best.

In the United States there are estimated to be anywhere from 100,000 to 1,000,000 blind persons, according to which of three definitions one chooses to accept. These blind persons, regardless of which measurement is applied, encompass the gamut of types, age groups, race groups, economic status, educational and intellectual advantage or disadvantage, and environmental backgrounds. Moreover, the blind population includes the newborn, the eldest senior citizens, and all the age range between. It covers both totally blind, who have no vision at all, and those with all the varying degrees of partial vision covered by any one or all three definitions of blindness. Lastly, it covers the congenitally blind—those either born blind or blinded so early in life that vision had no real meaning to them, and the adventitiously blind—those who lost sight either as adults or after having retained sight for enough time to have functioned extensively with it to make its loss a major event in the person's life.

The above facts are offered in support of the belief that blindness can and does happen to all types of persons, and that because of this the impact on the person's attitude and adjustment will vary greatly, influenced by a variety of factors. Therefore, it is the contention of the majority of those best informed on the subject, that there is no real psychology of blindness.

The foregoing does not mean to imply in any way that blind persons do not face psychological and even psychiatric problems, nor to minimize the depth or seriousness of these problems. The intent is merely to show that by virtue of the fact that blindness itself is such a variable disability and the persons who are faced with it are in effect a rather fair sampling of the general population, it must follow that the impact of blindness, its effect on the personality, attitudes, family and social relationships, and ability to return to or remain as a "useful citizen" will vary according to many factors which in themselves have no relationship to blindness itself.

There is one final point to be made before getting to the major concern of this paper. It has already been pointed out that blindness occurs in all groups. However, it is essentially associated with aging, as is borne out by the statistic that more than fifty per cent of all blind persons are over sixty-five years of age. Accordingly, it is not surprising that many of this older age group will be beset by other deteriorative diseases, among them deteriorative mental illness. Thus we will see in mental hospitals and other custodial institutions a larger per-

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Approved for publication by Commissioner, Department Mental Hygiene and Hospitals.

centage of blindness than is found in the general population. Unfortunately, the body of knowledge about this group is at this time limited. It is to be hoped that those working in the field of services to blind persons will become more aware of the need to join with other community resources in providing more service to these persons, by assisting in placing in the community those who are able to leave the mental hospitals, and by spearheading research into the exact nature of the problems of the blind and mentally ill senior citizen, not only for his benefit, but also for the knowledge of prevention and treatment of mental illness in other blind persons. In addition, by studying abnormal adjustment to blindness, it might be that valuable material could be obtained to assist other blind persons to make a more normal adjustment.

With the realization, then, that blindness is a physical disability which occurs in all age groups and has many serious aspects depending on factors which in themselves are not a part of the blindness itself, let us turn to the major consideration of this paper, some of the psychological and psychiatric problems of newly blinded adults. We have chosen this group not only because of its special meaningfulness to our own job responsibilities, but also because there seems to be a greater body of well-founded knowledge, rather than surmise and opinion, compiled in this area than in any other in the field. Also, there is special interest because many of those concerned are persons with family and job responsibilities, which makes their successful readjustment to blindness of additional importance to those who are dependent on them for economic security and family leadership and stability.

To the person who has learned a sighted way of life, blindness is an end, a death to that sighted life. It may be a rapid death resulting from accident or some fulminating disease, or it may be a slow, lingering, progressive dying resulting from conditions such as glaucoma, various infectious diseases, or diabetes, which at the present time is one of the major causes of blindness in adults. Whether the onset is sudden or slow, blindness is an end to a sighted way of living, and a destructive blow to the person's acquired way of doing things, to his established relationships, and his way of functioning in his environment. More than just a blow to his eyes as one small part of his body, blindness is a staggering blow to the self-image which the person has created during his sighted life.

Many adults who suddenly lose their sight completely go into a sort of shock period which may last for from a few days to a few weeks. During this period they experience a sort of psychological immobility and cannot think or feel. The person has suffered a damaging blow to his ego, and the degree of recovery will depend on the amount of ego-strength and maturity attained by the person before the loss of vision. Dr. Louis Cholden, a brilliant psychiatrist who contributed much to the understanding of problems before his untimely death a few years ago in an auto accident, hypothesized that the damage to the ego might be adversely influenced by too long a shock period or by repeated episodes brought on by well-meaning but ill-advised efforts to shorten or prevent this period. Dr. Cholden felt that the person needed such a shock period in order to mobilize his forces and reorganize his inner strengths.

Once the newly blinded person begins to experience emotion again he goes into a period of depression that seems to be a necessary part of the recovery and reorganization. During this period the persons feels sorry for himself, evidences recrimination, feels helplessness, may have suicidal thoughts, and suffers a psycho-motor retardation. It is a difficult and painful period, yet one which the person seems to need to go through in order to face fully and completely the extent and finality of his loss.

Aside from all the internal problems which the person must work through in order to come to a full acceptance of his

blindness, there are many which have external manifestations. Some of these are: the inertia of human beings to change, the stereotypes which exist of blind persons as a class, the historical connotations of blindness as a punishment for sin, minority group aspects, and the dependency which it seems to carry along with it. Perhaps even more important, though, are the well meant false hopes which are held out to the person by family, friends, religious counselors and doctors. The ophthalmologist in particular can do much to help or hinder by his handling of the patient. Experience has shown that many such doctors, by not telling the person of his final loss of vision, and instead holding out hopes for later cures, does nothing to help the person and much to harm him. This type of handling by the ophthalmologist stands in the way of the person's full acceptance of his visual disability, and while it is stated frequently by the doctors that the person could not take the shock of blindness, experience has tended to show the doctor is in fact not shielding his patient but salving his own feelings over failure to prevent blindness, which he has accepted as his life work.

Presuming that the newly blinded adult has more or less successfully passed through the shock and depression, he has reached a point where he has recognized and accepted his loss of vision and is now ready and more amenable to readjustment and rehabilitation processes. What he already has accomplished is important, but his road back is still a long and arduous one. Let us, then, consider briefly some of the problems which still must be faced and either eliminated, overcome, or substituted for.

Reverend Thomas Carroll, an experienced worker and profound thinker in the area of work with blind persons, has identified twenty losses which befall the newly blinded adult, and which must be recognized and satisfactorily dealt with before a successful rehabilitation and readjustment can be accomplished. These losses have been used as the framework in the development of two major rehabilitation programs for blinded adults in the United States.

The losses specified by Father Carroll seem so fundamental that they are becoming rapidly accepted as Credo by those concerned with the readjustment and rehabilitation of blind persons.

A. Basic Losses in Psychological Security.
   1. Loss of physical integrity. The person is no longer a complete, whole person and must accept the cliches such as "maimed", "afflicted" and worst of all "blind".
   2. Loss of confidence in the remaining senses.
   3. Loss of reality contact with environment.
   4. Loss of visual background.
   5. Loss of light security.

B. Losses in Basic Skills.
   6. Loss of mobility.
   7. Loss of techniques of daily living.

C. Losses in Communication.
   8. Loss of ease of written communication.
   9. Loss of ease of spoken communication.
   10. Loss of informational progress. This is a loss of ability to keep up with the times.

D. Losses in Basic Appreciation.
   11. Loss of the visual perception of the pleasurable.
   12. Loss of the visual perception of the beautiful.

E. Losses Concerning Occupation and Financial Security.
   13. Loss of recreation.
   14. Loss of career, vocational goal, job opportunity.
   15. Loss in financial status.

F. Resulting Losses to the Whole Personality.
   16. Loss of personal independence.
   17. Loss of social adequacy.
   18. Loss of obscurity.
   19. Loss of self-esteem.

20. Loss of total personality organization.

The above losses are factors to be dealt with by the newly blinded person and those assisting him in his readjustment and rehabilitation and for this reason it is of inestimable value to have them specified and identified. For the basis for solving problems lies first and foremost in being able to recognize and identify them. With programs structured to deal effectively with these losses and with a newly blinded person who has prepared himself by passing successfully through periods of shock and depression, a healthy atmosphere exists for the successful readjustment and rehabilitation of the blinded adult. Time, patience and practice will be required in order to learn necessary skills to substitute for vision and to strengthen the basic and healthy attitudes by the person who has died as a sighted individual and is being reborn as a blinded person, but the way has been paved and a good and happy life can be the result.

One final cautionary words remains to be said. The way back for a blinded adult can produce some very wonderful and at times almost unbelievable results, depending on the inner strength of the person, his intellectual endowment and physical skills, and the quality of the assistive services which he receives. However, no program can make the blinded person a completely new and different person. Fundamental personality and behavioral weaknesses which existed prior to loss of vision will continue to exist even after the most successful restorative process. An illustration of this is the thirty-five year old man who recently blinded himself while playing Russian roulette. All evidence of his behavior prior to blindness point up the fact that he was immature, was extremely egocentric, and was torn emotionally between guilt feelings over not having followed his father into the ministry and satisfaction in a job that provided status and job security and economic well-being. Along with the above, he is known to be a heavy drinker. He is currently in one of the rehabilitation programs described in this paper and has, despite better intelligence than all members of his class, experienced more problems in the program than his classmates. He is making progress and will derive great benefits from the course of training and counseling by skilled and trained workers. He will, without doubt, be able to return to an employed status. However, his basic personality weaknesses still exist and will, in all probability, continue to do so.

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In addition to the above written resources, credit is due to two persons whose experience, training and philosophy have contributed to the material in this paper, Dr. Kathryn Maxfield, Psychologist, New York City, and Mr. Saul Friedman, Psychologist, New York City.

Public Health . . . .

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Implementation of Medical Self-Help Training

In time of a national disaster, American families must be prepared to be on their own for a period ranging from hours to weeks. If they are to survive it will be mandatory for them to be self-sufficient, particularly in matters where life and health are involved. They may be totally deprived of a physician's services, due either to isolation within their own homes or shelters, or to a patient demand so overwhelming that physicians will be unable to care for all the sick and injured.

It is certain that many instances will arise where a person's ability to take immediate action in the absence of a physician will save his life or that of a member of his family or a neighbor. In other cases, life can be sustained by the application of proper procedures by a layman.

Nursing care may be difficult to obtain, or unavailable. The injured, the sick, and the chronically ill may have to be cared for by their own families or neighbors, perhaps for a long period.

Many other factors can affect the life and health of an individual. Food may have to be decontaminated before use. Water may need purifying before it can be drunk. Sanitary facilities may be inoperable, necessitating improvisation by individual families. Disposal of wastes may be the householder's responsibility. The usual public health protective measures against disease may be disrupted and each family will have to maintain vigilance to safeguard its members. The medical Self-Help Training Program, initiated by the Public Health Service, is designed to teach families to be able to take care of their own health needs during such an emergency. This program has the endorsement and support of the American Medical Association.

Underlying the Medical Self-Help Training concept is the philosophy that knowledge replaces fear. A person who knows what to do when faced with disaster will act rationally and effectively. One who is unlearned and fearful will react blindly and ineffectually. The training program gives people confidence in their ability to survive, along with the skills to make them self-reliant until they can obtain a physician's services.

The program consists of two parts: one, a reference manual (Family Guide To Emergency Health Care) which serves as a resource document; and two, a formal training course.

The manual contains instructions for survival and emergency health care if a physician or organized health services are not available for several days or for several weeks.

It was developed by the U. S. Public Health Service under contract with the Office of Civil Defense Mobilization. The Committee on Disaster Medical Care of the Council on National Security, American Medical Association, assisted and advised in its development.

The first printing was restricted in distribution to health, professional, military and civil defense personnel, for the purposes of:

1. Introducing the manual and the Medical Self-Help Training Program;
2. Enlisting support of Medical Self-Help Training through State and local programs;
3. Encouraging participation in the program in the interest of improved national preparedness; and

4. Obtaining additional review of content and approach before dissemination to the general public.

In October, November, and December of 1961, three Medical Self-Help Workshops were held; one in Brooklyn, New York, one in Alameda, California, and one in Battle Creek, Michigan. Approximately 100 professional health personnel and civil defense and education leaders attended each workshop to receive orientation in the proposed training program; to advise on the content and implementation of the program; and to obtain training kits to take back to their respective States for use in developing State programs. Subsequently, training kits were distributed in quantity throughout the country.

Each State has organized a Medical Self-Help Committee to provide professional leadership and give guidance to the training program. The committee consists of the State Health Officer, or his representative, the State Civil Defense Director, the State Chief School Officer, and a representative from the State Medical Society.

From inception of the research project, the American Medical Association, through its Council on National Security and its Committee on Disaster Medical Care, has provided guidance and counsel, and has reviewed all plans, actions, and materials concerned with the medical self-help program.

Content of the reference manual and all teaching materials has had further review by individual physicians and by other professional organizations and individuals with special interests or capabilities in the subject areas concerned.

In the spring and early summer of 1961, various national groups of divergent ages, educational backgrounds, and interests received medical self-help training to test the acceptance and validity of the program. These groups included members of several Parent-Teachers Associations; a Medical Auxiliary; State government clerical employees; supervisory and key management employees of a large bank; members of a local podiatry association; a Girl Scout Troop; professional and administrative staff of a county health department; a group of teen-age orphan boys; and office and warehouse personnel from a medium-size industrial firm.

Following these evaluations, numerous revisions were made in the instruction materials contained in the training kit. It is expected that further changes will be made as experience is gained in the implementation of the program on a nationwide scale.

The key figure in the Medical Self-Help Training Program is the practicing physician. He must provide the professional leadership and support so necessary for the successful teaching of the general population. To assist him and to do the actual instruction in most cases, the wholehearted support of the allied health worker and individuals with previous experience in this type of teaching is necessary.

It is recognized, however, that because of the disparity between the number of persons to be trained and the number of professional instructors available, some individuals will be selected for teaching who lack an extensive background in experience and/or training. For this reason the training kit is designed to be self-directing in terms of methods and content.

Whenever possible, the course will be taught under the supervision of a physician.

The State Department of Health has the responsibility for Civil Defense Medical Services for the State of Virginia, and thus has the responsibility for implementing the Medical Self-Help Training Program in the State.

All local health districts in Virginia were sent training kits during the month of February and most of them started their training programs early in March. The first two groups to finish a training course were in Richmond City and Chesterfield County.

As of June 1, 1962, there were 61 classes under way and 48 classes completed with 1,021 people trained.

Many health departments started the program in their areas with members of their staff and a cross section of the townspeople as the first students. This was done with the intention that from this group instructors would be chosen to continue the training in each area.

Plans are now under way to accelerate the rate of training in Virginia during the early fall.

Monthly Report of Bureau of Communicable Disease Control

	July 1962	July 1961	Jan.-July 1962	Jan.-July 1961
Brucellosis	2	3	10	13
Diphtheria	2	1	9	7
Hepatitis	53	199	857	948
Measles	327	1106	9105	11433
Meningococcal Infections	3	3	37	32
Aseptic Meningitis	5	5	16	17
Poliomyelitis	1	0	1	0
Rabies (In Animals)	13	11	92	153
Rocky Mt. Spotted Fever	6	11	19	29
Streptococcal Infections	296	345	9386	4236
Tularemia	3	1	11	12
Typhoid Fever	4	0	13	9

LSD-25 Being Sold on Blackmarket

A blackmarket now exists in LSD-25, a powerful drug capable of causing hallucinations, two Los Angeles physicians reported in the July 14th Journal of the American Medical Association. Drs. Sidney Cohen and Keith S. Ditman said the recent appearance of the drug as an item of underworld traffic is "an alarming development."

Now that the drug has become available from sources concerned solely with the profits from illicit sales, physicians may encounter patients in a state of LSD intoxication. The dangers associated with misuse of the drug include suicide, prolonged psychotic reactions and antisocial behavior.

There is illicit trade in LSD tablets, ampules and saturated sugar cubes. Some persons who take marihuana also take LSD and hold "LSD parties."

Addiction to LSD-25 has not yet been observed. However, a "new but not rare" type of multihabituation is appearing in which persons frequently indulge in a variety of stimulants, narcotics, sedatives, and hallucination-producing drugs, including LSD.

LSD's ability to produce hallucinations was discovered 20 years ago. Since that time, nearly 1,000 articles have been published on the drug. However, the manufacturers have refused to introduce the drug commercially until its side effects are more precisely determined.

At the present time, LSD-25 is distributed only to those who wish to engage in scientific investigations. Properly used the drug may aid in the study of mental processes.

"Its ability to induce a 'model psychosis' makes it an excellent laboratory device for the study of psychotic-like phenomena. LSD-25 has also been employed as an adjunct to psychotherapy because recall of repressed memories is enhanced and ego defensiveness to conflict-laden material is reduced."

The authors are affiliated with the Veterans Administration Hospital and the University of California Medical Center.

PRELIMINARY PROGRAM

SECOND INTERSTATE SCIENTIFIC ASSEMBLY

The Medical Society of Virginia
and
Medical Society of the District
of Columbia

SHERATON PARK HOTEL
WASHINGTON, D. C.
OCTOBER 14-17

PRELIMINARY PROGRAM
SECOND INTERSTATE SCIENTIFIC ASSEMBLY
The Medical Society of Virginia
and
Medical Society of the District of Columbia

SHERATON PARK HOTEL
WASHINGTON, D. C.
OCTOBER 14-17, 1962

Sunday, October 14

12:00 Noon

COUNCIL

Madison Room

7:00 P.M.

House of Delegates—Dinner Meeting

Cotillion Room

Monday Morning, October 15

9:00 A.M.

Ballroom

Welcome and Preliminary Announcements—Russell Buxton, M.D., President, The Medical Society of Virginia, and James Spencer Dryden, M.D., President, Medical Society of the District of Columbia.

Scientific Program

SYMPOSIUM

SPACE MEDICINE TECHNIQUES AND THEIR APPLICATION TO CLINICAL PRACTICE

9:15 A.M.—*Guest Speaker*—Brig. Gen. Charles H. Roadman, M.C., U.S.A.F., Director, Aerospace Medicine, Office of Manned Space Flight, National Aeronautics and Space Administration —SPACE MEDICINE IN SUPPORT OF MANNED SPACE FLIGHT.

9:40 A.M.—*Guest Speaker*—Lawrence E. Lamb, M.D., Professor of Internal Medicine, Chief, Clinical Sciences Division, School of Air and Space Medicine, Brooks Air Force Base, Texas—AEROMEDICAL EVALUATIONS OF AEROSPACE CREWS.

10:05 A.M.—*Guest Speaker*—Donald D. Wall, Ph.D., Special Technical Representative, International Business Machines Corporation, Washington, D. C.—COMPUTER EVALUATION OF BIO-MEDICAL DATA.

10:40 A.M.—Intermission to visit exhibits.

11:00 A.M.—SYMPOSIUM ON RENAL DISEASE.

Monday Afternoon, October 15

See section on luncheons, committee meetings and special events.

Ballroom

2:15 P.M.—NITROUS OXIDE GASOGRAM FOR DIFFICULT DIAGNOSIS FOR PELVIC PATHOLOGY—Christopher J. Murphy, Jr., M.D., Alexandria

2:30 P.M.—*Guest Speaker*—Thomas B. Barnett, M.D., Professor of Medicine, University of North Carolina School of Medicine, Chapel Hill, North Carolina—ANTIBODY THERAPY IN LUNG ABSCESS AND BRONCHIECTASIS

3:00 P.M.—THE DIAGNOSIS OF VASCULAR, NEUROVASCULAR AND NEUROPATHY DISEASE OF THE UPPER EXTREMITIES—Eugene L. Lowenberg, M.D., Norfolk

3:15 P.M.—Recess to visit exhibits

3:30 P.M.—The Electromyogram (EMG) As an Aid in the Diagnosis of Neuromuscular Diseases—Cary Suter, M.D., Richmond

3:45 P.M.—Colo-Rectal Polyps in Children —Arnold M. Salzberg, M.D., and David B. Hill, M.D., Richmond

4:00 P.M.—Surgical Treatment of Deafness —Irvin Hantman, M.D., Washington, D. C.

4:15 P.M.—Surgical Treatment of Cancer of the Nose—C. C. Coleman, Jr., M.D., Charlottesville

Continental Room

2:15—Symposium—Continuing Graduate Education in the Community Hospital

Tuesday Morning, October 16

Ballroom

9:00 A.M. — Symposium — Aspects of Genetic Disease

Participants will be Barton Childs, M.D., and Wilmer Newton Long, M.D., Johns Hopkins University School of Medicine, Baltimore, Maryland, and Malcolm M. Martin, M.D., Georgetown University School of Medicine, Washington, D. C.

Continental Room

9:00 A.M.—Symposium—Thyroid Disease
Participants will be Kenneth Crispell, M.D., Charlottesville, Jacob Robbins, M.D., National Institutes of Health, Bethesda, Maryland, and Ernest A. Gould, M.D., Washington, D. C.

10:40 A.M.—Intermission to visit exhibits

11:00 A.M.—Symposium—Diverticulitis and Diverticulosis

Participants will be Maurice Mensh, M.D., Washington, D. C., Moderator, Charles E. Bickham, Jr., M.D., Washington, D. C., Charles M. Caravati, M.D., Richmond, and Kenneth S. Warren, M.D., U. S. Public Health Service, Bethesda, Maryland.

Tuesday Afternoon, October 16

Ballroom

2:15 P.M.—Tumor Board

Continental Room

2:15 P.M.—Symposium—Auto-immune Disease

3:15 P.M.—Intermission to visit exhibits

3:35 P.M.—Panel—Perinatal Mortality
Participants will be McLemore Birdsong, M.D., Charlottesville, and Lester A. Wilson, M.D., Charlottesville

Wednesday Morning, October 17

Ballroom

SYMPOSIUM

Cardiovascular Diseases Amenable to Surgery —Medical and Surgical Aspects

9:00 A.M. — *Guest Speaker* — Catherine A. Neill, M.D., Assistant Professor of Pediatrics, Cardiac Clinic, Harriet Lane Home, Baltimore, Maryland —The Small Infant with Heart Disease
Guest Speaker—John W. Kirklin, M.D., Associate Professor, Department of Thoracic Surgery, Mayo Clinic, Rochester, Minnesota—Ventricular Septal Defect
Atrial Septal Defects—Lewis H. Bosher, Jr., M.D., Richmond
Aortic Valvular Disease—Charles A. Hufnagel, M.D., Washington, D. C.
Guest Speaker—Lawrence B. Ellis, M.D., Associate Professor of Clinical Medicine, Harvard Medical School and Chief of Cardiac Clinic, Boston City Hospital, Boston, Massachusetts—Indications for and Benefits from Surgery in Acquired Mitral Valve Disease

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10:40 A.M.—Intermission to visit exhibits

11:00 A.M.—Panel

Continental Room

SYMPOSIUM

TRAUMA AND REHABILITATION

9:00 A.M.—*Guest Speaker*—John R. McGibony, M.D., Chief, Intramural Research of Hospital and Medical Facilities, United States Public Health Service, Washington, D. C.—IS YOUR EMERGENCY ROOM READY?

The Emergency Room:

9:20 A.M. — DIAGNOSIS AND TREATMENT OF ACUTE HEAD INJURIES—J. Peter Murphy, M.D., Washington, D. C.

9:40 A.M. — DIAGNOSIS AND TREATMENT OF ACUTE FRACTURES — John P. Adams, M.D., Washington, D. C.

10:00 A.M. — DIAGNOSIS AND TREATMENT OF BLUNT CHEST INJURIES—James W. Brooks, M.D., Richmond

10:20 A.M.—DIAGNOSIS AND TREATMENT OF BLUNT ABDOMINAL INJURIES—Richard Thistlethwaite, M.D., Washington, D. C.

10:40 A.M.—*Guest Speaker*—Donald W. Benson, M.D., Professor of Anesthesiology, Johns Hopkins University School of Medicine, Baltimore, Maryland—RESUSCITATION FROM DEATH

11:00 A.M.—Intermission to visit exhibits

11:20 A.M.—REHABILITATION AFTER MYOCARDIAL INFARCTION—Reno Porter, M.D., Richmond

11:40 A.M. — REHABILITATION FOLLOWING STROKES AND INJURY—Frederick E. Vultee, Jr., M.D., Richmond

12:00 Noon—PANEL

Wednesday Afternoon, October 17

Ballroom

2:15 P.M. — THE WOLFF-PARKINSON-WHITE SYNDROME—ITS IMPORTANCE IN CLINICAL PRACTICE—Thomas L. Gorsuch, M.D., and Charles L. Savage, M.D., Waynesboro

2:30 P.M.—COMPLETE HEART BLOCK—CURRENT THERAPY—Albert J. Wasserman, M.D., V. Eric Kemp, M.D., and Eugene L. Harley, M.D., Richmond

2:45 P.M.—ELECTRICAL CARDIAC STIMULATORS—A REVIEW AND REPORT OF EXPERIENCES WITH THE INTERNAL CARDIAC PACEMAKER—Yale H. Zimberg, M.D., Richmond

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3:00 P.M.—Intermission to visit exhibits

3:15 P.M.—*Invited Speaker*—Julian R. Beckwith, M.D., Professor of Medicine, University of Virginia School of Medicine, Charlottesville—RECENT TRENDS IN THE MEDICAL TREATMENT OF HYPERTENSION

3:45 P.M.—*Invited Speaker*—W. T. Thompson, M.D., Chairman and Professor, Department of Medicine, Medical College of Virginia, Richmond —THE CLINICAL SIGNIFICANCE AND INTERPRETATION OF SHORTNESS OF BREATH. Co-author: John L. Patterson, Jr., M.D., Richmond

4:15 P.M.—*Invited Speaker*—Mr. Jules Pagano, Chief, Professional, Technical and Labor Division, Office of Public Affairs, Peace Corps, Washington, D. C.—PEACE CORPS

4:30 P.M.—Adjourn

SPECIAL EVENTS

Sunday, October 14

Virginia Academy of General Practice, Board of Directors, Franklin Room—9:30 A.M.

Council Meeting — Luncheon — Madison Room—12:00 Noon

Virginia Society of Anesthesiology—Luncheon—Assembly Room—12:30 P.M.

Woman's Auxiliary — Board Meeting — Hamilton Room—4:00 P.M.

Cancer Committee Meeting—Adams Room—4:00 P.M.

House of Delegates—Dinner Meeting—Cotillion Room—7:00 P.M.

Monday, October 15

Virginia Diabetes Association—Breakfast—Adams Room—8:00 A.M.

Woman's Auxiliary—Meeting—Assembly Room—9:30 A.M.

Woman's Auxiliary—Luncheon—Cotillion Room—12:00 P.M.

George Washington University — Luncheon — Ballroom—12:30 P.M.

Virginia Society of Ophthalmology & Otolaryngology —Luncheon—Franklin Room—12:30 P.M.

Virginia Society of Plastic & Reconstructive Surgery —Luncheon—Woodley Room—12:30 P.M.

Virginia Urological Society — Luncheon — Adams Room—12:30 P.M.

Virginia Orthopedic Society—Luncheon and Business Meeting—Hamilton Room—12:30 P.M.

Virginia Chapter, Amerian College of Chest Physicians—Luncheon—Madison Room—12:30 P.M.

Reference Committee #1—Assembly Room—2:00 P.M.

Reference Committee #2—Franklin Room—2:00 P.M.

University of Virginia Cocktail Party—West Cotillion Room—6:00 P.M.

Medical College of Virginia Cocktail Party—Franklin Room—6:00 P.M.

Duke Medical Alumni Association Cocktail Party—Assembly Room—6:00 P.M.

Medical College of Virginia Banquet—East Cotillion Room—7:00 P.M.

Duke Medical Alumni Association Banquet—Assembly Room—7:00 P.M.

Tuesday, October 16

Executive Committee, Virginia Society of Internal Medicine — Breakfast — Madison Room — 8:00 A.M.

Woman's Auxiliary — Breakfast — Adams Room—8:00 A.M.

Woman's Auxiliary—Meeting—Hamilton Room—9:00 A.M.

Virginia Section, American College of Physicians and Virginia Society of Internal Medicine—Luncheon—West Cotillion Room—12:30 P.M.

Virginia Society of Internal Medicine will hold meeting in West Cotillion Room immediately following luncheon.

Virginia Academy of General Practice—Luncheon—East Cotillion Room—12:30 P.M.

Virginia Pediatric Society — Luncheon — Adams Room—12:30 P.M.

Virginia Obstetrical & Gynecological Society—Luncheon—Franklin Room—12:30 P.M.

Virginia Surgical Society — Luncheon — Assembly Room—12:30 P.M.

House of Delegates—Meeting—Assembly Room—4:00 P.M.

The Medical Society of Virginia and the Medical Society of the District of Columbia—Cocktail Party—Florentine Foyer and Balcony—6:30 P.M.

The Medical Society of Virginia and the Medical Society of the District of Columbia—Annual Banquet—Sheraton Hall—7:30 P.M.

Dancing—Sheraton Hall—9:00 P.M.

Wednesday, October 17

Virginia Medical Service Association—Luncheon—Assembly Room—12:30 P.M.

Georgetown Medical Alumni Association—Luncheon —Cotillion Room—12:30 P.M.

The Virginia Radiological Society will hold its annual meeting on Saturday, October 13—the day preceding the Annual Meeting. A business session will be held in the Madison Room of the Sheraton Park from 3:00 to 5:00 P.M., and dinner will follow at 6:00 P.M. in the Cotillion Room.

Golf Tournament

The annual golf tournament of The Medical Society of Virginia will be held on Monday, October 15, at the Washington Golf and Country Club in Arlington. The Golf Committee plans to charge a flat fee of $10, which will cover green fees, caddy fees and refreshments at the "19th hole".

The Washington Golf and Country Club requires a Club member to play in each foursome. Because of this, the committee is anxious to learn as soon as possible who plans to compete.

MEDICAL MOTION PICTURES

Sheraton Park Hotel

Burgundy Room

Monday, October 15

9:00 A.M.—Cerebral Vascular Disease—Challenge of Diagnosis—American Heart Association, New York

Presents three case histories to illustrate, by live action and animated diagrams, the different clinical features of thrombosis, hemorrhage and focal ischemia.

9:30 A.M.—Renal Arteriography — Transfemoral Technique—Robert G. Weaver, M.D., Salt Lake City, Utah

The problems of renal vascular hypertension are discussed and illustrated. Examples of operative correction and angiograms are shown, with special emphasis on the transfemoral method of screening.

9:52 A.M.—Angina Pectoris

10:50 A.M.—Coronary Occlusion

11:25 A.M.—Atherosclerosis & the Role of Estrogens—Ayerst Laboratories, New York

A Round Table Conference by selected specialists on an important medical subject.

12:00 A.M.—Lunch Break or "Encore Hour"

1:00 P.M.—Surgical Treatment of Ventricular Septal Defects: Experience in 300 Cases—Denton A. Cooley, M.D., Houston, Texas

This film demonstrates the surgical management of isolated ventricular septal defects. The important role of a recently developed pump oxygenator is described.

1:20 P.M.—Cine Survey of Surgery of the Stomach and Duodenum—Hilger Perry Jenkins, M.D., Chicago, Ill.

Fifteen lesions are summarized. X-rays with overlays are used to correlate the pathology. The appropriate surgery is diagramatically illustrated.

1:42 P.M.—Endoscopy of the Bile Ducts—C. J. Schein, M.D., E. S. Hurwitt, M.D. and A. Herskovitz, M.D., New York

The film illustrates the normal endoscopic anatomy of the bile ducts and the use, during actual biliary surgery, of the choledochoscope.

1:52 P.M.—Ligation and Stripping in the Treatment of Varicose Veins—John L. Keeley, M.D. and Arne E. Schairer, M.D., Chicago, Ill.

Introductory comments about the place of ligation and stripping in the treatment of varicose veins, and the demonstration of the authors' preferred technique of surgery.

2:15 P.M.—Open Fractures—Veterans Administration, Washington, D. C.

Emergency treatment, including care of injured soft parts and such complications as shock and infection, starting at scene of injury and then to definitive management in the hospital.

2:43 P.M.—Treatment of Abdominal Penetrating Wounds in Civilian Practice—William A. Altemeir, M.D., Cincinnati, Ohio

Depicts the treatment of penetrating wounds of the abdomen and prevention of death from one of medicine's true emergencies.

3:13 P.M.—Reduction Mammioplasty for Massive Pendulous Breasts—Philip Thorek, M.D., Chicago, Ill.

Surgical technique in detail is shown of a partial bilateral mastectomy with nipple transplants for the large, pendulous breasts. The postoperative course of this case as well as several others is presented.

3:35 P.M.—Proctosigmoidoscopy in Office Practice—Emerson Day, M.D. and Ralph E. Hertz, M.D., New York

A step-by-step description of the technique of proctosigmoidoscopy, with emphasis on the simplicity and safety of the procedure in the routine search for early colon and rectal cancer.

3:50 P.M.—Transvesico Capsular Prostatectomy—Guy W. Leadbetter, Jr., M.D. and Wyland F. Leadbetter, M.D., Boston, Mass.

The authors demonstrate a procedure which, in their experience, combines the good features of both suprapubic and retropubic enucleation of the prostate.

4:10 P.M.—Hospital Maternity Care: Family Centered—St. Mary's Hospital, Evansville, Ind.

This film portrays an interesting experiment in modern maternity care—family participation in the birth of a baby.

4:38 P.M.—Manual Removal of the Placenta—Bruce Mayes, M.D., Sydney, Australia

By means of an ingenious plastic model, the author vividly demonstrates his technic of this operative obstetric procedure.

Tuesday, October 16

All films shown on Tuesday are of local origin, and whenever possible, the producer-doctor will be there for introduction and commentary.

11:19 A.M.—Children in Search of a Self—William M. Lordi, M.D., Richmond, Va.

11:40 A.M.—Amniotic Band Elephantiasis—Alberto F. Borges, M.D., Falls Church, Va.

11:50 A.M.—A One Stage Hypospadias Repair on a Patient Previously Operated 15 Times Unsuccessfully—Charles E. Horton, M.D., Norfolk, Va.

1:00 P.M.—Cystic Fibrosis—Lucas L. Kulczycki, M.D., Washington, D. C.

1:35 P.M.—Gastro-Intestinal Cine Radiography—L. O. Snead, Jr., M.D., Richmond, Va.

1:50 P.M.—Hysterocolpectomy — Oliver C. Cox, M.D., Washington, D. C.

2:15 P.M. — Left Colon Transplant for Esophageal Replacement—William D. Byrne, M.D., Washington, D. C.

2:45 P.M.—Oxygen Therapy — Theory and Procedures—Major Richard D. Reese, MSC, USAF, Office of the Surgeon General, Washington, D. C.

3:10 P.M.—Radical Resection of Ischial Tuberosities in Paraplegia — J. T. O'Hanlan, M.D., Waynesboro, Va.

3:28 P.M.—Repair of Median Episiotomies Including Third Degree Lacerations—Robert H. Barter, M.D., Washington, D. C.

3:48 P.M.—The Use of Radio-Active Colloidal Gold for Treatment of Inoperable Carcinoma Prostate—Louis B. Bachrach, M.D., Washington, D. C.

4:08 P.M.—Parosteal Sarcoma—John S. Thiemeyer, Jr., M.D., Norfolk, Va.

Wednesday, October 17

9:00 A.M.—Medical Genetics, Part I—The National Foundation, New York

A dramatic and accurate introduction to one of the newer developments of clinical medicine. The film ends with a detailed description of three major groups of chromosomal abnormalities in man—mongoloid, Klinefelter's and Turner's syndrome.

9:33 A.M.—Medical Genetics, Part II—The National Foundation, New York

Dealing with biochemical genetics in man, this part relates specific changes in protein structure to such clinical entities as sickle cell anemia, phenylketonuria and other aminoacidurias.

10:04 A.M.—Face of an Addict—Martin Lasersohn, M.D., New York

Portrays the career of a young physician who becomes a narcotic addict.

10:34 A.M.—Chemical Use of Blood Fractions

10:59 A.M.—Diabetes in Youth—Elliott P. Joslin, M.D., Boston, Mass.

This film, produced just prior to the death of its renowned author, is a product of the Joslin Clinic. It presents the special problems, treatment and control of the juvenile diabetic.

1:00 P.M.—Physical Diagnosis—The Neck—Stewart Wolf, Jr., M.D., Oklahoma City, Okla. and Frederick J. Margolis, M.D., Detroit, Mich.

A demonstration of over 30 different cervical disorders, including muscle, skeletal, neurological, as well as benign and malignant tumors and tracheal deviation.

1:30 P.M.—Essentials of the Neurological Examination—Francis A. Vazuka, M.D., Philadelphia, Pa.

The author shows how a non-specialist can perform an adequate neurological examination in his office or at the patient's bedside. Specialized equipment is not required.

2:20 P.M.—Examination of the Peripheral Joints—Paul J. Bilka, M.D., Minneapolis, Minn.

The film demonstrates a routine technique for examining the normal hand, elbow, knee and foot. The emphasis is on the general principles of physical joint examination.

2:47 P.M.—Emotional Factors in General Practice—Their Recognition and Management—H. E. Lehmann, M.D. and Nathan B. Epstein, M.D., Montreal, Canada

Actual interviews of a depressed patient by a general practitioner. The result of two months of therapy can be seen as it evolves.

3:30 P.M.—The Diagnosis of Viral Meningitis—The National Foundation, New York

This film covers clinical diagnosis and epidemiological considerations. New and faster laboratory procedures for isolating and identifying viruses are shown.

4:02 P.M.—The Anatomy of the Human Ear—A Dissection under the Zeiss Microscope—J. Duncan Gray, FRCS, Sheffield, England

The author dramatically photographs the ear from two aspects, and then, by running the film backwards, reconstructs the ear bit by bit and chip by chip, from the cochlea and semicircular canals to the eardrum and ossicles.

Current Currents

ANNUAL MEETING: This issue contains a special section on the 1962 Annual Meeting—officially designated the Second Interstate Scientific Assembly—and all members are urged to read it carefully.

The fact that the meeting is a joint affair with the Medical Society of the District of Columbia means that there will be *three full* days of scientific sessions, and more scientific and technical exhibits than ever before. The setting, of course, is the Nation's Capital, and this adds to the "family appeal". A trip to the "other side" of the Potomac is always an adventure.

PARAMEDICALS: A late bulletin from the Washington Report on the Medical Sciences brings word of a new paramedical organization. It will be known as the Congress of Allied Health Sciences and will be composed of professionals in fields allied to medical practice. It has been described as a potential potent force, not only in reshaping clinical customs and procedures, but also in influencing national legislation. Since it is still in the process of organization, it is difficult to predict how big it will be and just which groups it will represent. Backers say that the Congress will start out with more than 200,000 affiliated members in 50 states.

AMA, last year, noted the increasing importance of paramedical groups when it established a Commission to Coordinate the Relationships of Medicine with Allied Health Professions and Services. According to the Washington Report, "establishment of this new group may facilitate amicable coordination of professional services—or pose a new obstacle."

FALLOUT SHELTERS: The National Fallout Shelter Program's objective is to develop fallout shelter space for every person in the United States by 1967. The projection is for 235 million shelter spaces developed as follows: 70 million shelter spaces through the National Fallout Shelter Survey, 100 million shelter spaces through the proposed Shelter Incentive Program, 5 million spaces by incorporating shelter in Federal buildings, 60 million spaces through private initiative by industry, institutions, home-owners and others not eligible for Federal grants for shelter construction.

The National Bureau of Standards is participating in an evaluation program to assess the value of large buildings as fallout shelters. This survey will identify existing buildings that can serve as fallout shelters and those that can be modified for shelter use. Expected to be completed some time this year, the survey will help to identify those geographic areas in which sufficient shelter space exists, as well as those in which there is a need for more shelter. Other government agencies assisting in the survey are Census Bureau, Army Corps of Engineers, and the Navy Bureau of Yards and Docks.

FALLOUT PROTECTION FOR HOSPITALS: The U. S. Public Health Service in a recent publication entitled "Fallout Protection for Hospitals" states that an additional 4% investment is needed to insure fallout protection for new hospitals and approximately 13% is required for the construction of fallout-protected additions to existing facilities. Suggested guidelines in planning new construction are included in the report.

LEGISLATIVE SPOTLIGHT: From time to time your Editors like to call attention to legislation which is of more than passing interest to the profession—even though it may not affect physicians directly. This month the spotlight is on H. R. 11581, entitled "Drug and Factory Inspection Amendments of 1962". This bill, introduced by Oren Harris (D., Ark.), provides for amendments with a stated purpose of assuring the safety, efficacy and reliability of drugs, standardizing drug names, establishing special control for barbiturate and stimulant drugs, requiring informative prescription drug advertising, and strengthening factory inspection authority.

Manufacturers would be required to make an affirmative showing in their new drug applications as to the efficacy of the drug, as well as safety. Failure to include such information would constitute grounds for refusing to allow the application to become effective, and the Secretary of the Department of Health, Education and Welfare could suspend the effectiveness of a new drug application if he finds that clinical experience and other tests show a drug to be inefficacious as well as unsafe. Manufacturers would be required to maintain records and make reports to the Secretary of data relating to the clinical experience, or other information on the drug, in order to enable the Secretary to determine whether there are grounds for suspending an application on the basis that a drug is either inefficacious or unsafe.

The bill would provide that appeals from the decisions or orders of the Secretary of HEW would be to the United States Circuit Court of Appeals rather than the District Court.

The proposal would extend the present certification of certain antibiotic drugs to all drugs composed wholly or partly of any antibiotic substance.

The bill would authorize the Secretary of HEW to promulgate regulations establishing a single standard name for a drug or for identical drugs. A drug failing to carry on its label the "established name" to the exclusion of any other proprietary name would be deemed to be misbranded.

Authority for factory inspection under the bill would be strengthened by including records, files, papers, processes, controls and facilities bearing on whether the articles may be misbranded or adulterated, or otherwise bearing on possible violation of the law.

TECHNICAL EXHIBITS

Technical Exhibits will be in the Exhibit Hall (lower level). They will be open on Monday through Wednesday from 9:00 A.M. until 5:00 P.M. The following is a list of these exhibits.

Booth No. 1
Van Pelt & Brown, Inc.
Richmond, Virginia

Booth No. 2
Wm. P. Poythress & Co., Inc.
Richmond, Virginia

Booth No. 3
Davies, Rose & Co.
Boston, Massachusetts

Booth No. 4
Aloe Medical
Silver Spring, Maryland

Booth No. 5
The Chloraseptic Company
Washington, D. C.

Booth No. 6
Nelson Kloman Surgical Supply Co.
Washington, D. C.

Booth No. 7
Peoples Drug Stores, Inc.
Washington, D. C.

Booth No. 8
American Casualty Company
Roanoke, Virginia

Booth No. 9
Richmond Surgical Supply Co.
Richmond, Virginia

Booth No. 10
America Fore-Loyalty Group
Richmond, Virginia

Booth No. 11
The Dietene Company
Minneapolis, Minnesota

Booth No. 12
Mutual Benefit Life Insurance Co.
Washington, D. C.

Booth No. 13
Organon, Incorporated
West Orange, New Jersey

Booth No. 15
Medco Products Company, Inc.
Baltimore, Maryland

Booth No. 16
St. Paul Fire & Marine Insurance Co.
St. Paul, Minnesota

Booth No. 17
R. J. Reynolds Tobacco Company
Winston-Salem, North Carolina

Booth No. 18
Schering Corporation
Union, New Jersey

Booth No. 19
Knoll Pharmaceutical Company
Orange, New Jersey

Booth No. 20
Riker Laboratories, Inc.
Northridge, California

Booth No. 21
Williams & Wilkins Company
Baltimore, Maryland

Booth No. 22
W. B. Saunders Company
Philadelphia, Pennsylvania

Booth No. 23
Maxwell & Tennyson
Washington, D. C.

Booth No. 24
Ciba Pharmaceutical Company
Summit, New Jersey

Booth No. 25
G. D. Searle & Company
Chicago, Illinois

Booth No. 26
Warner-Chilcott Laboratories
Morris Plains, New Jersey

Booth No. 27
White Laboratories
Kenilworth, New Jersey

Booth No. 28
Wampole Laboratories
Stamford, Connecticut

Booth No. 29
The Birtcher Medical Distributors of D. C.
Washington, D. C.

Booth No. 30
McNeil Laboratories, Incorporated
Philadelphia, Pennsylvania

Booth No. 31
E. R. Squibb & Sons
New York, New York

Booth No. 32
The Stuart Company
Pasadena, California

Booth No. 33
Smith, Kline & French Laboratories
Philadelphia, Pennsylvania

Booth No. 34
The Borden Company
New York, New York

Booth No. 35
Roche Laboratories
Nutley, New Jersey

Booth No. 36
Arcum Pharmaceutical Corporation
Washington, D. C.

Booth No. 37
Lederle Laboratories
Pearl River, New York

Booth No. 38
Julius Schmid, Incorporated
New York, New York

Booth No. 39
Sandoz Pharmaceuticals
Hanover, New Jersey

Booth No. 40
Pfizer Laboratories
New York, New York

Booth No. 41
The Coca-Cola Company
Atlanta, Georgia

Booth No. 42
Smith, Miller & Patch, Incorporated
New Brunswick, New Jersey

Booth No. 43
Ayerst Laboratories
Arlington, Virginia

Booth No. 44
Geigy Pharmaceuticals
Yonkers, New York

Booth No. 45
Baker Laboratories, Incorporated
Cleveland, Ohio

Booth No. 46
Abbott Laboratories
Chicago, Illinois

Booth No. 47
Burton, Parsons & Company
Washington, D. C.

Booth No. 48
J. B. Roerig & Company
New York, New York

Booth No. 49
Eli Lilly & Company
Indianapolis, Indiana

Booth No. 50
Charles C. Haskell & Company
Richmond, Virginia

Booth No. 51
Mead Johnson & Company
Evansville, Indiana

Booth No. 52
Boyce & Lewis, Incorporated
Washington, D. C.

Booth No. 53
Beth-Mont Surgical Supply Company
Chevy Chase, Maryland

Booth No. 54
C. V. Mosby Company
Philadelphia, Pennsylvania

Booth No. 55
Ortho Pharmaceutical Company
Raritan, New Jersey

Booth No. 56
Physicians Products Company, Inc.
Petersburg, Virginia

Booth No. 57
H. J. Heinz Company
Pittsburgh, Pennsylvania

Booth No. 58
Merck, Sharp & Dohme
West Point, Pennsylvania

Booth No. 59
Capital Credit Corporation
Washington, D. C.

Booth No. 60
Desitin Chemical Company, Incorporated
Providence, Rhode Island

Booth No. 61
Sanborn Company
Waltham, Massachusetts

Booth No. 62
Walker Laboratories
Mount Vernon, New York

Booth No. 63
W. T. S. Pharmaceuticals
Rochester, New York

Booth No. 64
U. S. Vitamin & Pharmaceutical Corporation
New York, New York

Booth No. 65
A. H. Robins Company, Incorporated
Richmond, Virginia

Booth No. 66
The Upjohn Company
Kalamazoo, Michigan

Booth No. 67
Playtex
New York, New York

Booth No. 68
C. B. Fleet Company, Incorporated
Lynchburg, Virginia

Booth No. 69
Roche Laboratories
Nutley, New Jersey

Booth No. 70
Wallace Laboratories
Cranbury, New Jersey

Booth No. 71
Lloyd Brothers, Incorporated
Cincinnati, Ohio

Booth No. 72
Burroughs Wellcome & Company (U.S.A.)
Tuckahoe, New York

Booth No. 73
Holland-Rantos Company
New York, New York

Booth No. 76
Pepsi-Cola Bottling Company
Cheverly, Maryland

Booth No. 77
Winthrop Laboratories
New York, New York

Booth No. 78
Hermien Nusbaum & Associates
Chicago, Illinois

Booth No. 79
Professional Business Management, Incorporated
Washington, D. C.

Booth No. 82
Quaker City Pharmacal Company
Philadelphia, Pennsylvania

Booth No. 83
Beuchler's Incorporated
Washington, D. C.

SPACE 1: *Metastatic Tumors in the Skin*—Raymond A. Osborn, M.D., Washington.

This exhibit presents the histologic appearance of metastatic tumors in the skin. Some typical clinical pictures will be shown.

SPACE 2: *The Use of Visual Aids in Diabetic Teaching*—Edward J. Gallagher, M.D., Fairfax, and Marian M. Korczowski, M.S., Washington.

Wax models used in teaching the system of food exchanges to patients in the Georgetown University Diabetic Clinic are shown. The proper size of each food serving is accurately illustrated and the selection of diabetic meals is demonstrated.

SPACE 3: *Lymphangiography: Its Therapeutic Application*—Capt. Fouad A. Halaby, M.C., Capt. Robert M. Wright, M.C., Capt. John C. Turner, M.C., Capt. James H. Freeman, M.C., and Capt. Louis G. Galdieri, M.C., Washington.

This exhibit demonstrates the use of lymphangiography in pre- and post-lymphadenectomies as an aid to nodal dissection at the time of surgery, and for postsurgical evaluation of the effectiveness of the dissection. A lymphangiography demonstration of post-lymphadenectomy complications is included.

Another section shows the method and value of utilizing opacified nodes for following the results of radiotherapy and in detecting subsequent metastatic lesions. Also included is a section dealing with the possible therapeutic applications of lymphangiography, through the utilization of intralymphatic injections of radioisotopes.

SPACE 4: *Development of a Chemical Pacemaker for Heart Block*—Lt. M. J. Folkman, M.C., U.S.N., and Lt. David M. Long, Jr., M.C., USNR, Bethesda.

A one centimeter chemical pacemaker has been developed which can be implanted in the myocardium for complete heart block. The exhibit will illustrate the possible usefulness of this capsule compared to the more bulky implantable electrical pacemakers; its potential application in other disease will be outlined. This research is still in progress.

SPACE 5: *Recognizing the Depressed Patient*—Frank J. Ayd, Jr., M.D., Baltimore.

Exhibit will present information on the recognition and classification of various forms of depression through the presentation of graphs, charts and recordings. Results of long-term clinical investigation of various drugs on 530 patients showing therapeutic results and side effects of the major antidepressant drugs are reported. Information presented on depression in general, the physical, emotional and psychic complaints of the patient, general observations and chemotherapy will aid the modern physician to meet a most challenging problem.

SPACE 6: *The Differential Diagnosis of Genital Bleeding During the Last Half of Pregnancy Done at the Bedside with a Radioactive Isotope*—Samuel M. Dodek, M.D., E. E. Gahres, M.D., S. N. Albert, M.D., J. D. Paul, M.D., W. D. Terrell, M.D., Washington.

Charts and diagrams will represent how 99% of bleeding cases in the last trimester of pregnancy can be diagnosed as to the relation of the placental site to genital bleeding. All of the cases which will be explained were those where bleeding occurred during the last trimester of pregnancy.

SPACE 7: *Miss Information, Please*—Elizabeth J. Muldoon, Washington.

This exhibit will be used as an information booth for doctors. Two dietitians will be on hand to give out technical literature, bibliographies, etc., and to talk to doctors about their dietary problems.

SPACE 8: *The Human Thermostat*—T. H. Benzinger, M.D., Bethesda, and Maria Benzinger, M.D., Washington.

Man's mechanisms of temperature regulation were recently resolved in quantitative terms of effects and causes, responses and stimuli. The responses are: increased chemical *production* of heat in cold and under warm conditions, increased physical *loss* of heat by sweating and vasodilation. The stimuli are cooling of cold-receptors of the skin, and warming of warm-receptors in the anterior hypothalamic "heat loss center". This center appears to function as a terminal sensory organ, as a "temperature-eye" or "human thermostat". It drives the physical responses independently. It regulates the chemical response to peripheral cold-reception by inhibition. It is responsible for the maintenance of a sharp "setpoint" near 37°C, and for its displacement in fever. Production or loss of heat may change by 5% of a normal metabolic rate in response to a temperature change of only 0.01°C at the central thermostatic site.

SPACE 9: *Fresh Tissue Demonstration*—Sponsored by Section on Pathology and Laboratory Medicine, The Medical Society of the District of Columbia.

SPACE 10: *Selected Current Clinical Studies of the National Institutes of Health*—Clifton K. Himmelsbach, M.D., Bethesda.

Presentation of selected current clinical studies of the seven National Institutes, together with descriptive literature for the guidance of physicians who may wish to refer patients to the Clinical Center of the National Institutes of Health.

SPACE 11: *Clinical Appearance, Plastic Repair, Microscopic Pathology of Skin Lesions*—John E. Alexander, M.D., William Enos, M.D., and Albert Borges, M.D., Falls Church.

Color photographs showing clinical appearance, plastic surgery technique, and photomicrographs which will be covered give observer an opportunity to make clinical diagnosis.

SPACE 12: *Traumatic Affections of the Cervical Spine*—Eugene G. Lipow, M.D., Washington.

Exhibit consists of three-dimensional anatomical, true color model representations of the more common traumatic affections of the cervical spine. Causes of cervical root syndrome, cord involvement, dislocations of intervertebral discs, fractures and dislocations of cervical vertebrae and their complications are shown. Treatment in some of these conditions is also indicated.

SPACE 13: *Put Syphilis Back in the Differential Diagnosis*—Harry Pariser, M.D., and A. F. Marino, Norfolk.

Purpose of this exhibit is to alert physicians to the increasing incidence of syphilis. First panel notes that in Norfolk, private physicians are now reporting more syphilis than the Health Department. The second demonstrates that as the result of interview by the Health Department of a case of early syphilis reported by a private physician, 62 persons were examined and 33 were found to be infected. The third shows the yearly rise in incidence of the disease and adds a plea for increased index of suspicion.

SPACE 14: *Plain Abdominal Film Diagnosis*—Forrest V. Schumacher, M.D., Washington, and Ira J. Green, M.D., Alexandria.

Plain films of the abdomen which demonstrate interesting and varied pathological entities will be shown. Adjacent to the plain film a second film or a printed description will reveal the answer. The latter will be covered so that it will be necessary to raise the covering to discover the answer. Approximately 18-20 cases will be shown.

SPACE 15: *A New Approach to Obstetrics and Gynecology*—J. Allan Offen, M.D., Bowie, Maryland.

Exhibit presents a total correlated approach to obstetric and gynecologic practice, which offers: (1) efficient utilization and saving of the physician's time; (2) improvement of patient-doctor relationships and increased rapport; and (3) an opportunity for every physician to participate in clinical research in connection with his own practice. It embraces the use of uniform, standardized, complete self-histories, individual and group teaching techniques, and computer methods of analysis of standardized clinical data in large series obtained from multiple sources.

SPACE 16: *Clinic for Retarded Children, Bureau of Maternal and Child Health, D. C. Health Department*—J. W. Oberman, M.D., Washington.

Four interconnected panels describing diagnostic and treatment services offered by the D. C. Clinic for Retarded Children are titled respectively: Objectives, Personnel, Services to the Children, and Services to the Parents. Posters are available indicating the Age of Development of Self-Help Skills of the Retarded Child (Walking, Toilet Training, Talking, etc.).

SPACE 17: *Middle Ear Photography*—Cary N. Moon, Jr., M.D., Charlottesville.

Demonstration of equipment and techniques of middle ear photography in the operating room and the office. Enlarged transparencies showing the normal and abnormal tympanic membrane, middle ear anatomy and pathology and middle ear procedures. Steps in tympanatomy and stapedectomy are illustrated. Values of middle ear photography are outlined.

SPACE 18: *Simplified Regional Oncolytic Techniques*—Jeanne C. Bateman, M.D., and Harry N. Carlton, M.D., Washington.

This exhibit is a pictorial presentation of simplified techniques of administering and concentrating non-vesicant oncolytic agents into tumor sites, including serous cavities, liver and local masses. The techniques do not require hospitalization and can be repeated indefinitely. Results of such management in over 1,000 cases are indicated.

SPACE 19: *Total Management of the Allergic Child*—Gilbert D. Barkin, M.D., Silver Spring, Maryland.

SPACE 20: *Plastic Surgery of the Nose*—Gordon S. Letterman, M.D., Washington.

An operative series in color transparencies is presented together with diagrams illustrating each step. Instruments used in the rhinoplasty procedure are displayed. Plaster casts useful in preoperative design are shown. Black and white photographs of patients are employed to illustrate a variety of conditions before, during and after surgery.

SPACE 21: *A Follow-Up Study of 142 Hiatal Hernias Repaired Through the Chest*—Marcellus A. Johnson, III, M.D., Roanoke.

Charts, etc., will depict results obtained symptomatically and radiologically of 142 hiatal hernias repaired through the chest and followed for six months to eight years.

SPACE 22: *Hereditary Hemorrhagic Telangiectasia: Surgical Management of Epistaxis*—Jack J. Rheingold, M.D., Washington.

Photographs of patients presenting the salient features of this disease are presented. An operative series with accompanying descriptions and illustrations is displayed. Diagnostic features, the course and interesting historical points will be outlined. Underlying pathology is demonstrated with photomicrographs and diagrams.

SPACE 23: *Nitrous Oxide Gynecography*—Christopher J. Murphy, Jr., M.D., A. C. Wyman, M.D., and Jean De Vries, R.N., Alexandria.

Nitrous oxide gynecography (pelvic pneumoperitoneum) is a safe, simple, valuable diagnostic procedure for the visualization of the female genitalia and related pelvic structures. Originally intended as a diagnostic aid to the detection of the Stein-Leventhal Syndrome (poly-cystic ovaries with infertility) it is now used for other pelvic disorders. A new sterile, closed gas injection system, and a new plastic sheath for paracentesis needle is presented, designed to eliminate repeated introduction of needle for gas filling and decompression. Representative cases presented.

SPACE 24: *Prostheses in Cardio-Vascular Surgery*—E. L. Marston, M.D., Silver Spring, Maryland.

The historical development and clinical application of synthetic and biological prostheses in cardiovascular disorders requiring surgical correction are presented. Various specific substitute materials for these various systems are shown with indications for their use and certain results noted.

SPACE 25: *Premature Craniosynostosis*—Franklin L. Angell, M.D., Edgar N. Weaver, M.D., and John A. Martin, M.D., Roanoke.

The exhibit is composed of clinical photographs, roentgenograms, and moulages of patients demonstrating the various forms of cranial deformity resulting from premature closure of one or more of the cranial sutures. Brief history of the early classifications of this disease is presented, accompanied by a graphic summary of the cases found within a five and one-half year period. Surgical treatment is outlined. The necessity for the pediatrician, radiologist, and neuro-surgeon to function as a team in evaluation of patients with this condition is demonstrated in the exhibit.

SPACE 26: *Radio-Isotope Brain Scan Study in Diagnosis of Brain Tumors*—William T. Spence, M.D., Washington.

Utilizing Mercury Neohydrin 203 and one hour later running a Photo and Dot Scan automatically across the cranium, a picture is produced on an x-ray film and also on paper showing the concentration of the Isotope in the various brain tumors. A comparison of the two types of recording can be made. A short history and other diagnostic studies, many of which were normal, will be presented to show the advantage of the Radio-Isotope Scan Study in the diagnosis of brain tumor.

SPACE 27: *Aortic Abnormalities*—Edward D. Soma, M.D., and H. L. Twigg, M.D., Washington.

Abnormalities of the thoracic aorta, as visualized on chest roentgenograms will be presented. Especially featured will be those which simulate mediastinal masses. The correct diagnosis can often be made on the plain films; aortic kinkings, tortuosity, etc. Occasionally angiograms are necessary to make the diagnosis (tumor vs. aneurysm).

SPACE 28: *Current Concepts in the Diagnosis and Treatment of Head and Neck Cancer*—John F. Potter, M.D., Washington.

Exhibit is designed to graphically demonstrate the advances in management of patients with cancer of the head and neck. It will indicate historical features and physical findings which are associated with intraoral cancer. Methods of biopsy of these lesions and utilization of intraoral cytology will be presented. Newer concepts in the treatment of these patients from surgical, radiotherapeutic and chemotherapeutic aspects, and their combinations will be presented.

SPACE 29: *Air Splints—For Emergency Treatment of Fractures*—E. D. Vere Nicoll, M.D., Charlottesville.

Vinyl, inflatable splints are shown for emergency treatment of fractures. Demonstrations will be made to show how to apply the splints. Cases treated are shown and discussed and the wide range of usefulness of the splints illustrated. Their small size, when deflated, makes them easy to carry or store in first-aid kits, skiers' satchels, etc.

SPACE 30: *Studies in Sickle Cell Disease: Involvement of the Nervous System*—Roland B. Scott, M.D., Washington.

This demonstration presents the clinical course of patients with sickle cell anemia who exhibited neurological manifestations. The studies include histories, physical findings, neurological evaluations and pertinent laboratory findings. Photomicrographs of selected brain lesions and electroencephalograms are presented. The variable nature and differential diagnosis of neurological complications is emphasized.

SPACE 31: *Intralesional Triamcinolone in Localized Dermatoses*—Marc Allen Weiner, M.D., Washington.

This is a recent and effective mode of therapy in selected dermatoses. The exhibit states the indications and contra-indications, describes the technic and the precautions. The results and side-effects of treatment in about 200 patients are tabulated. Enlarged kodachrome transparencies are presented to illustrate before and after status of various dermatoses.

SPACE 32: *Study of Newborns in the State of Virginia*—Robert H. Anderson, M.D., and Thistle M. McKee, M.D., Alexandria.

Comparison of newborn statistics in Virginia with those of the other states, illustrating how our statistics are compiled from hospitals throughout the State by the Fetus and Newborn Committee, which is a subcommittee of the Child Health Committee of The Medical Society of Virginia. Hospitals will be urged to cooperate with this study and to participate in the Perinatal Morbidity and Mortality Study of the A.M.A.

SPACE 33: *Medical Lessons of the Past Prologue to the Future*—Colonel John Boyd Coates, Jr., M.C., U.S.A.

Edited and authored by such pre-eminent members of the medical profession as Sterling Bunnell, M.D., Michael E. DeBakey, M.D., R. Glen Spurling, M.D., W. Paul Havens, M.D., and John E. Gordon, M.D., and U. S. Army Medical History volumes contain clinical and administrative reference material of immeasurable value. The lessons learned in the care of large numbers of casualties can prevent much loss of life in the event of future disasters, whether of military or civil origin.

SPACE 34: *Craniotomy without the Necessity of Removing the Hair*—Jonathan M. Williams, M.D., Washington.

By a series of color transparencies and short descriptive texts the step by step method of performing craniotomies without the removal of hair is shown. This method has been successfully employed in 38 cases. Publication reprints will be available.

SPACE 35: *Know Your Vitamins*—Miss Sarah Brown, AMA, Chicago.

Vitamin preparations are used extensively and are valuable when used properly. For the most intelligent use and beneficial results in preventive or therapeutic medicine, the values and the limitations of vitamins should be realized. It is important that a clear differentiation be made between vitamins as dietary supplements and vitamins as therapeutic agents.

SPACE 80: (Exhibition Hall) *Respiratory Disease: Diagnosis and Treatment*—Virginia and the District of Columbia Tuberculosis Associations, Catherine C. Zaharov and Rebecca Sweeney, R.N., Richmond.

Exhibit consists of three units each with a teaching machine, case history and x-ray. After reading the case history and x-ray, the physician diagnoses the case. Answers may be checked with the machine.

SPACE 81: (Exhibition Hall) *Value of Early Diagnosis*—American Cancer Society, District of Columbia Division, Shirley A. O'Connor, R.N., Washington.

Exhibit defines early diagnosis, and the basis of curability of cancer. It uses three sites, namely, the uterine cervix, the breast and the rectum as examples. It emphasizes the role that early diagnosis plays in cancer control and the need for emphasizing all available means to detect cancer while it is still in a curable stage.

REPORTS FOR 1961 ANNUAL MEETING

Executive Secretary-Treasurer

The events of the past twelve months should serve to erase for all time any doubts that might previously have existed concerning the value of state medical societies—and local medical societies—and for that matter the AMA. These were the three basic units which anchored one of the really effective defensive lines of our times—and still possessed enough strength to unleash an offensive powerful enough to turn the tide of battle just when proponents of government medicine threatened to steamroller all in their path.

Yes, the King-Anderson bill is on the shelf until January, 1963, but the memory lingers on. Health care for the aged through social security will become the main issue of the 1962 Congressional campaigns and January will signal the beginning of another all-out attempt to force such legislation through the Congress. If medical societies think they had it rough in '61 and '62—they haven't seen anything yet!

This is why it is essential for every physician in Virginia to rally around his society and give it his complete support. This support will cost—in time, money and effort—but where can one find a better reward? Freedom carries no price tag—it can't be bought—it must be earned. Physicians of America have earned it so far, and by doing so have earned the respect and admiration of people in every walk of life. Now, they must continue to earn—and earn again!

The largest item in the budget of our nation is for defense. The budget for The Medical Society of Virginia is no different. Practically everything the Society has done in the past year, and will do in the foreseeable future, is tied in some way to the defense and preservation of the traditional free practice of medicine. When the auditor's report is published in the December issue of the Monthly, it will be readily seen that the stepped-up pace has taken its financial toll.

The reasons will not be difficult to spot. The cost of publishing "News and Views" had not been anticipated—but apparently was worth every cent it cost. The Society had more people attending more meetings, and the increased activity in the field required increased activity in the office. The fact that advertising in the Virginia Medical Monthly did not recover as much as had been hoped was another contributing factor. One of the most active sessions of the General Assembly brought with it unforeseen legal expenses.

Last year the report of the Executive Secretary had this to say: "Whether we should go further is a question which should be decided as a matter of policy—especially since it involves the financial resources of the Society to a considerable extent."

The Society did decide to go further—it had no other choice. Thus far, it has stood up well under the increased demands. Its financial structure remains sound, but it is a wise pilot who keeps a weather eye fixed on the horizon. If the Society is to continue as an effective force in the legislative battles that lie ahead, then the Council and House of Delegates must take a close look at future needs. Should an increase in dues be deemed necessary, then the membership can ease the pain of a difficult decision through understanding and cooperation.

Although the battle to defeat King-Anderson must certainly rank as the highlight of this year's activities—there were others which deserve special mention. In the interest of time and space and to prevent as much overlapping as possible, we shall devote the remainder of this report to those matters which impress us as being of more than passing interest:

Membership: The growth in membership remains unbelievably constant. In 1960 we reported a net gain of 83; in 1961 the increase was 76; and the net gain this year is 74. Actually, the Society had more new and reinstated members this year than last, but losses, principally through death, were unusually high. It is with deep regret that we report the passing of 51 members since the last Annual Meeting. Thirty-four deaths were reported last year. The over all membership story follows:

Members reported July 31, 1961			3,017
New members	158		
Reinstated	5		
Gain		163	
Deaths	51		
Resignations	22		
Dropped	16		
Loss		89	
Net increase			74
Total membership July 31, 1962			3,091

Legislation: The Medical Society of Virginia, with its Committee on Legislation (State) leading the way, was successful in its efforts to have enacted legislation permitting the forming of professional associations. This legislation, reported in more detail by the Legislative Committee, provides a means by which three or more physicians might obtain certain tax and retirement benefits heretofore available only to corporations.

More important, for obvious reasons, was the enactment by the General Assembly of legislation which will enable Virginia to implement provisions of the Kerr-Mills law. Unfortunately, demands on the State budget were such that necessary funds could not be made available until January 1, 1964. At that time, however, Virginia should be able to launch an adequate and successful Kerr-Mills program for those needy aged over 65. In the meantime, the State-Local Hospitalization Program should continue to adequately meet the needs of this group.

Insurance: Your Society again proved it means what it says about serving its members. Three new programs have just been placed in operation. One provides a means of establishing a savings and retirement program (Keogh type) for individuals and another provides a similar plan for members of professional associations. The third is an accidental death and dismemberment plan at very, very low premium rates. We sincerely hope that each member will study these new programs and establish their relationship to his individual needs. By all means, read the report of the Insurance Committee in this issue.

Headquarters Building: Your Headquarters is now filled to capacity. It seems appropriate to include in this report a sincere word of "welcome" to the Virginia Hospital Association and its Executive Director, Mr. Stuart Ogren. Mr. Ogren occupies a two room suite of offices on the second level, and he and his secretary are welcome additions to the Headquarter's "family".

The Virginia Academy of General Practice has taken steps to solve its "growth" problem by renting the last remaining office on the second floor. The Medical Society of Virginia is fortunate indeed to have such close friends sharing its facilities.

Little by little we seem to be solving the problem of a leaking roof. It has been a long "elimination process," but thankfully the leaks are becoming fewer all the time. You will be advised when the final victory is won!

Staff: The Executive Secretary cannot help but point with justifiable pride to the loyal and competent staff members who help make his job such a pleasant one. You know them—Miss Spencer Watkins, Mrs. LaRuth Spring and Mr. Edwin Smith. It is a fact that The Medical Society of Virginia has one of the smallest staffs among the fifty states, and this certainly speaks for itself.

It should perhaps be said, however, that the steady increase in work volume will soon make it necessary to employ additional office assistance. The present work load is just about "maximum" if quality is not to be sacrificed.

The upcoming Annual Meeting in Washington (Second Interstate Scientific Assembly) will certainly be one of the most important in the history of the Society. With so many problems confronting medicine, the House of Delegates will be faced with the necessity of making policy decisions which will, in large part, determine what future course of action the Society will pursue.

As we look back on the eventful past year, we can only express the greatest admiration for the firm guidance of a most able President and hardworking Council. It goes without saying that the affairs of Virginia's physicians were never in better hands.

ROBERT I. HOWARD
Executive Secretary-Treasurer

AMA Delegates

Your delegates to AMA would again like to cover a few of the more important matters acted upon by the AMA House of Delegates during its meeting in Chicago from June 25-28. All three delegates of The Medical Society of Virginia were in attendance at all sessions.

Health Care for the Aged: The House received 17 resolutions expressing full support of the Kerr-Mills program and firm opposition to the King-Anderson type of legislation. In reaffirming the position of active opposition to the King-Anderson Bill, the House cited the following reasons:

"1) the lack of need for such a plan.
"2) that it would provide inadequate care for all aged rather than complete care for those who need help.
"3) the fact that inherent in the use of the Social Security mechanism are governmental controls of medical practice which would increase with the expansion of the program.
"4) deterioration of the quality of medical care not only for the aged but for the population as a whole."

In reaffirming strong support for the Kerr-Mills Act, the House declared that "the Kerr-Mills method should be given a fair and reasonable chance to meet the need and thus remove the demand for further Federal legislation."

The House took no action on one resolution which called for non-participation in the implementation of the King-Anderson Bill, but it urged individual physicians to give particular consideration to the following sections of the Principles of Medical Ethics:

"Section 1. The principal objective of the medical profession is to render service to humanity with full respect for the dignity of man. Physicians should merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion.

"Section 5. A physician may choose whom he will serve. In an emergency, however, he should render service to the best of his ability. Having undertaken the care of a patient, he may not neglect him; and unless he has been discharged he may discontinue his services only after giving adequate notice. He should not solicit patients.

"Section 6. A physician should not dispose of his services under terms or conditions which tend to interfere with or impair the free and complete exercise of his medical judgment and skill or tend to cause a deterioration of the quality of medical care."

Medical Discipline: To implement one of the major recommendations made by the Medical Disciplinary Com-

mittee at the June, 1961, meeting in New York, the House approved a change in the Bylaws under which a proposed Section 1 (B) of Chapter IV will now read:

"In addition to such disciplinary action as may be taken under the constitution and bylaws of the component society and constituent association to which the Member belongs, or when a state medical association to which a member belongs requests the AMA to take disciplinary action, or when at the request of the American Medical Association the state association to which the member belongs consents to disciplinary proceedings by AMA, the Judicial Council, after due notice and hearing, may censure him, or may suspend or expel any member of the American Medical Association from AMA membership only for an infraction of the Constitution or these Bylaws or for a violation of the Principles of Medical Ethics."

American Board of Abdominal Surgery: A study report from the Council on Medical Education and Hospitals, recommending that recognition should not be granted to the American Board of Abdominal Surgery as a specialty board, was approved by the House. In accepting the Council report, the House also declared its disapproval in principle of establishing specialties which are based largely or wholly on an arbitrarily defined anatomical region of the body.

American College of Surgeons: In considering a Board report and four resolutions involving surgical assistants and relations between the AMA and the American College of Surgeons, the House declared that the adoption and interpretation of the Principles of Medical Ethics is the prerogative and duty of the American Medical Association. It also restated the Association's June, 1961, policy statement in the following manner:

"(1) Each member of the AMA is expected to observe the Principles of Medical Ethics in every aspect of his professional practice.

"(2) Each doctor engaged in the care of the patient is entitled to compensation commensurate with the value of the services he has personally rendered.

"(3) No doctor should bill or be paid for a service which he does not perform; mere referral does not constitute a professional service for which a professional charge should be made or for which a fee may be ethically paid or received.

"(4) When services are rendered by more than one physician, each physician should submit his own bill to the patient and be compensated separately whenever possible.

"(5) It is ethically permissible in certain circumstances, however, for a surgeon to engage other physicians to assist him in the performance of a surgical procedure and to pay a reasonable amount for such assistance. This principle applies whether or not an assisting physician is the referring doctor."

Voluntary Health Insurance: In accepting a Council on Medical Service report on the utilization of state and federal tax funds to provide voluntary prepayment health insurance protection to assist the aged in meeting the costs of health care services, the House approved the following policy statement:

"1. The need for application of the prepayment or insurance principle to protect our people against the costs of medical care is fully recognized and applies to all ages rather than to the aged alone.

"2. Persons financially able to prepay their own expenses are expected to do so and must be encouraged rather than compelled to do so.

"3. Persons financially unable to prepay adequately their expenses may properly be assisted to the degree necessary by their families, their communities, their states, and if these fail, by the Federal Government—but only in conjunction with other levels of government.

"4. The prepayment system should be devoid of governmental controls.

"5. Dignity and self-sufficiency for the individual should be upheld.

"6. The protection offered must be reasonably comprehensive rather than token in character."

The House recommended that the Board of Trustees and the Council on Medical Service explore all possibilities, using these principles as a basis.

Miscellaneous Actions: In considering reports and resolutions on a wide variety of subjects, the House also:

Learned that the Board of Trustees has instructed the Council on Drugs to conduct a study on the relationship between tobacco and disease.

Disapproved a suggestion that the Council on Medical Education and Hospitals be replaced by two separate councils on undergraduate and graduate medical education.

Referred to the Board of Trustees a proposal that at least six members of the Council on Medical Education and Hospitals shall be engaged primarily in the private practice of medicine in hospitals without a medical school affiliation and that no more than four members may be salaried personnel of a medical school or university.

Adopted an AMA Statement of Principles on Mental Health and urged all constituent associations to lead active support to the First National Congress for Mental Illness and Health, to be held in Chicago in October.

Endorsed the joint statement on narcotic addiction by the AMA and the National Research Council of the National Academy of Sciences.

Urged automobile manufacturers to make seat belts, approved by the Society of Automotive Engineers, standard equipment on all automobiles.

Reaffirmed its opposition to compulsory coverage of physicians under the Social Security Act, after receiving 11 resolutions opposing coverage and only two favoring the inclusion of physicians.

VINCENT W. ARCHER, M.D.
W. LINWOOD BALL, M.D.
ALLEN BARKER, M.D.

Publication

The Virginia Medical Monthly has had a successful year from the standpoint of the quantity and quality of articles submitted for publication.

The special Confederate Medical Issue, which appeared in October 1961, was well received and requests for reprints have been heavy with many going to far away places. The Surgical Number which appeared in April 1962, was the first instance of an entire issue being devoted to the publication of papers presented at a state

specialty meeting. There was relatively little response to this innovation and your Publication Committee would welcome expressions of opinion as to whether other medical groups in Virginia should be encouraged to use the State Journal as an official organ.

Many articles and editorials in the Virginia Medical Monthly have been reprinted in whole or part by newspapers, medical periodicals and pharmaceutical journals during the past year. Our journal was included in the first ten state magazines for attractiveness of format at the annual meeting of the State Medical Journal Advertising Bureau last winter in Chicago.

Our financial status is not as favorable as it was prior to the investigation of the drug industry in 1960. These congressional hearings caused a sharp reduction in the amount of advertising in state journals by the various pharmaceutical houses. The total fell from $2,061,861 in 1959 to $1,314,213 in 1961 and this trend is continuing. All state Journals have felt this recession but the Virginia Medical Monthly has been affected less than most. A recent summary of the number of advertising pages in 34 state medical magazines that appear monthly has shown our journal to fluctuate between second and fifth place in the six monthly tabulations during the first half of 1962. We shall endeavor to maintain this favorable position.

Your Publication Committee wishes to thank the members of The Medical Society of Virginia for their loyal support during the past year and trust they will continue to send their best articles to the Virginia Medical Monthly for publication.

H. J. Warthen, Jr., M.D., *Chairman*

Mediation

Once again, all grievances have apparently been handled satisfactorily by the component societies. Although a number received by the state office were referred to local societies for necessary action, no appeals were received by this committee.

In keeping with a suggestion made last year by Dr. James P. King, a survey of component societies is now under way to determine the status of local grievance committees and the extent of their activity.

James D. Hagood, M.D., *Chairman*

Ethics

Only three matters were referred to the committee during the past twelve months, and two of these were referred primarily for information. Consequently, no formal meetings of the committee were necessary.

From all indications, local societies are fulfilling their responsibilities in the handling of matters involving ethics. Those which have not yet appointed Ethics Committees are urged to do so, since such committees are an integral part of the over all plan by which the medical profession can effectively police its ranks.

As a matter of interest and information, your committee calls attention to a change in the By-Laws of AMA approved by its House of Delegates in June. Section 1 (B) of Chapter IV now reads: "In addition to such disciplinary action as may be taken under the Constitution and By-Laws of the component society and constituent association to which the Member belongs, or when a state medical association to which a Member belongs requests the AMA to take disciplinary action, or when at the request of the American Medical Association the state association to which the member belongs consents to disciplinary proceedings by AMA, the Judicial Council, after due notice and hearing, may censure him, or may suspend or expel any member of the American Medical Association from AMA membership only for an infraction of the Constitution or these By-Laws or for a violation of the Principles of Medical Ethics."

Russell G. McAllister, M.D., *Chairman*
Robert P. Trice, M.D.
John Smoot, M.D.

Public Relations

The many activities of The Medical Society of Virginia during the past twelve months have proven conclusively that just about everything physicians do has some bearing on public relations. Physicians, whether they realize it or not, are practicing public relations, be it good or bad, every hour of the day and night. It is because of this that your committee's report this year includes a number of activities which, although not committee projects, are nevertheless excellent examples of good medical PR.

Your committee, as in the past, gave considerable thought to the senior medical student and his future role in organized medicine. This year, as a change of pace, the dinner meetings of the past three years were not held. Instead, each senior medical student was provided with a special gift packet of books and other material covering the business aspects of medicine, medical history, public relations and legislation. The packets were unusually well received.

Once again, special awards were presented to 4-H Club members who completed outstanding health projects during the year. Presented through the Committee on Rural Health, these awards have made many friends for medicine during the past five years. Letters from award winners provide the finest possible evidence that the young people of our State are sincerely appreciative of such tangible interest in their work. This is one project which your committtee hopes will be continued indefinitely.

The all important battle to defeat King-Anderson, and thus preserve the free practice of medicine in this country, provided every physician and every component medical society an excellent opportunity to put good PR to work. Each member of your committee was active in his own locality and aided his local society in every way possible. The many television and radio programs, addresses before civic groups, and excellent newspaper advertisements speak eloquently of an unprecedented amount of activity at the local level.

Along this same line, we can report that "News and Views"—something new and different in the way of medical society newsletters—has been so effective in the King-Anderson battle that plans are being made to make it a regular Society project. The letter will cover many items of interest and importance—not just legislation. It is our intention to have the best informed members in the country.

Because of the overriding importance of the King-An-

derson controversy, the committee, by necessity, was unable to implement several projects which, nevertheless, hold great promise for the future. These projects, utilizing materials developed by a public relations firm working with the Illinois State Medical Society, stress physical fitness for America's youth, special newspaper health features and attractive window displays for banks, stores, etc.

It is good to report that the Southern Planter, one of this country's outstanding farm publications, has, in cooperation with the Society, been printing health features each month. Inquiries received in the State Office indicate wide reader interest.

Your Chairman again attended the AMA Institute in Chicago, and can only repeat that each component society should make every effort to send a representative. The Institute is usually held around the first of September and attracts physicians from all parts of the country. Virginia's participation (numerical) has always been disappointing.

Once again, your Chairman served as a member of a Special Advisory Committee to the National Junior Chamber of Commerce, and attended the annual committee meeting in Tulsa, Oklahoma. The Junior Chamber continues to cooperate with medicine in sponsoring projects of importance, and your Chairman is hopeful that young physicians can be encouraged to participate in its programs and activities. A start toward this end was made this year.

Another activity attended by the Chairman was the 10th Annual National Conference on Disaster Medical Care. The Conference, held in Chicago, covered such important subjects as:

Pinpointing Responsibility in Chemical, Biological and Radiological Defense.

Handling Public Concern with Hazards of Radioactive Fallout.

Medical Aspects of The National Shelter Program.

The Public Health Service Program.

Development of a Coordinated Community Health Plan for Disaster Preparedness.

The Medical Self-Help Training Program.

The 1962 Civil Defense Emergency Hospital Program.

Fluorescent Antibody Technique for Rapid Identification of Pathogens—Demonstration.

I hope that each year a member of this committee can attend these conferences and, in between meetings, constantly remind our readers, through our publication, of valuable progress being made along these lines.

As medicine spearheads the battle against socialism, and thus projects itself more and more into the public eye, it should be clear to all that physicians must be more conscious than ever before of their PR responsibilities. Perhaps this is a good time to repeat that "Good medical public relations begins (and sometimes ends) in the physician's office." Let all of us do our part.

John Wyatt Davis, Jr., M.D., *Chairman*
Thomas W. Murrell, Jr., M.D., *Vice-Chairman*
Mason C. Andrews, M.D.
Marcellus Johnson, III, M.D.
Harold W. Felton, M.D.
Robert L. Cassidy, M.D.

Judicial

The amendments to the By-Laws contained in this report have been proposed to the Judicial Committee with the request that they be put in proper form and presented to the House of Delegates for consideration.

Your committee makes no recommendations concerning the desirability of these proposed amendments. Such decision would seem to rest properly with the House.

The following amendments to the By-Laws have been proposed:

Article III

Amend Section 2 to read as follows:

"There shall be only one component society in a county or city, and no component society may be established in a territorial area included in the jurisdiction of another component society: provided, however, that if two or more political subdivisions shall, by merger, annexation, or otherwise, become a single political subdivision, any component societies in the said political subdivisions may continue as separate component societies, or any number of them may unite to form a single component society. When a component society qualifies, it may obtain a charter upon application to the Executive Secretary-Treasurer, which charter shall be signed by the President and the Executive Secretary-Treasurer. Should it seem desirable that a component society in one or more political subdivisions in a congressional district unite with a component society in one or more political subdivisions in an adjoining congressional district, as a single component society, such action may be taken provided it be sanctioned by the Councilor from each of such districts. Such component society shall be deemed to be in the jurisdiction of the Councilor of the district in which the majority of its membership resides."

Amend Section 7 to read as follows:

"A member may join a more convenient component society in the same or an adjoining political subdivision if the component society, or societies, having jurisdiction in the county or city in which the member resides gives consent."

(The purpose of the above amendments is to make it possible for two component medical societies to exist in the same political subdivision. This matter was referred to the Judicial Committee as the result of mergers now being contemplated.)

Article V

Amend Section 7 to read as follows:

"The House of Delegates shall elect delegates and alternates to the House of Delegates of the American Medical Association in accordance with the Constitution and By-Laws of that organization. Such delegates shall be elected by ballot and each member shall be allowed to vote for as many of the nominees as there are delegates to be elected. Those receiving the highest number of votes will be declared elected as delegates. Following the election of delegates, alternates shall be

elected by ballot, and each member shall be allowed to vote for as many of the nominees as there are alternates to be elected. Those receiving the highest number of votes will be declared elected as alternates."

(The purpose of the above amendment is to clarify the procedure for electing delegates and alternates to the House of Delegates of the American Medical Association.)

J. Morrison Hutcheson, M.D., *Chairman*
W. Callier Salley, M.D.
John R. Saunders, M.D.

Legislation

More than 65 bills and resolutions dealing with matters of interest to The Medical Society of Virginia were introduced at the 1962 session of the General Assembly and are covered in this report. Your attention is particularly directed to those sections which deal with the professional association, sterilization and implied consent statutes.

Professional Associations

At the annual meeting of the Society held last October, a resolution was adopted directing the taking of whatever steps might be necessary to procure the enactment of a statute permitting the organization of professional associations which would qualify for taxation as corporations under the federal income tax statutes and regulations, and thus acquire the right to set up pension and deferred compensation plans for their members and other employees.

Counsel for the Society, after a study of the applicable federal statutes and regulations and of the laws which had been adopted by other states in pursuance thereof, prepared a bill which was approved by your Committee on Legislation. Before the bill was introduced, the State organizations of the other professions were consulted for the purpose of ascertaining which of them were interested in the matter and whether they would unite with the Society in an effort to have the bill enacted into law.

The bill was in the form of an enabling act and made applicable to the professions to be named therein, and it was most gratifying to find that, with the single exception of the Virginia State Bar, all the professional groups desired to be included in its provisions. The Ethics Committee of the Bar had under consideration the question of whether lawyers could ethically practice in association form and its Executive Committee felt that it could not ask the inclusion of the practice of law within the coverage of the bill until this question had been determined.

The bill was introduced in the House of Delegates with Dr. Walter C. Elliott as its chief patron, and after a hearing before the Committee on General Laws, was amended by that Committee so as to include the practice of law, and then reported unanimously. It was then passed by the House 89 to 0 and after a hearing before the Senate Committee on General Laws, was reported unanimously and passed by the Senate without a dissenting vote. In due course the act was signed by the Governor and will become effective on June 29, 1962.

Virginia has now become the seventh state to enact legislation of this kind and the statute has created a great deal of interest at both the state and national level. Copies of the act have been mailed by one of the largest Richmond banks to all members of the profession practicing in that area and copies may be obtained by members of the Society from the Executive Secretary. The statute has been included in the publication of the national tax and pension plan services, and it is expected that after it becomes effective, groups of professional men will organize associations and request that these be classified as corporations under the federal statutes and regulations.

Medical Examining Board

Four bills requested by the Medical Examining Board and approved by our Legislative Committee were enacted. The two which increase the annual license fee for practitioners of the healing arts from $1.00 to $3.00, were amended to carry emergency clauses and became effective on February 27, 1962. A third increases the per diem for members of the Board from $10.00 to $15.00, while a fourth bill enables the Board to employ a professional investigator to gather information in connection with complaints filed with the Board, a service which the Board has needed for some time and which will be paid for out of license revenues.

Sterilization

The General Assembly created a special commission in 1958 to study problems relating to children born out of wedlock. The commission recommended to the 1960 Session that voluntary sexual sterilization be authorized and that the physician who performs such an operation be protected, but a bill to that effect was defeated, as were two bills which made different approaches to compulsory sterilization. However, the V.A.L.C., pursuant to S.J.R. 18, studied Virginia laws relating to sexual sterilization and recommended to the 1962 General Assembly legislation authorizing voluntary vasectomies and salpingectomies.

The bill was supported by the Medical Society for the reason stated in the V.A.L.C. report that "the surgeon has no sure guide as to all cases in which the operation may be performed, within the bounds of good medical practice and without potential liability to civil responsibility." Under the able guidance of its chief patron, Hon. John Warren Cooke, the bill was given full hearing by both House and Senate Committees. At these hearings there was testimony that some physicians do not hesitate to perform such operations in cases where, in their opinion, the best interests of the patient requires it.

The principal opposition to the bill was religious in nature, and some objections were removed when the voluntary sterilization of minors was limited to those afflicted with epilepsy, mental deficiency or hereditary mental illness. With this and other strengthening amendments the bill was enacted.

The act as passed requires consultation, explanation and a 30 day waiting period. However, any physician who carefully follows the procedure established by the law is protected from liability.

Bills which would have established a procedure by which a court order could be obtained directing sterilization of the mother of more than one illegitimate child, and which would have conditioned the continued receipt of

welfare funds for the care of an illegitimate child upon submission to salpingectomy, met with little favor and were not reported out of the Senate Committee on General Laws.

Good Samaritans

Several bills introduced at this session had been considered by the General Assembly before. One of these was a bill to relieve physicians from liability for emergency care rendered in good faith, popularly known as the good Samaritan bill. An identical bill had died in committee in 1960. Opposition to the legislation was initially quite strong and did not abate until the bill was substantially amended by the House General Laws Committee on its second referral to that committee.

The statute differs from those adopted in 1959 and 1960 in nine other states. As amended and enacted it applies to care rendered at the scene of a roadside or highway accident where the person to whom the physician renders the care is not already his patient.

Prosthetic Plaster Casts

For a number of years manufacturers of prosthetic appliances have made plaster casts of the members of the body for which appliances were to be fitted and from these negative molds have cast positive plaster reproductions to be used in manufacturing and fitting the appliances. During the 1962 session someone objected to this practice and the Secretary of the Board of Medical Examiners forbade the activity as constituting the unlawful practice of medicine. At the request of a number of orthopaedic surgeons, a section of the Medical Practice Act was amended so as to permit such work when done on the prescription of a licensed physician, the amendment being effective March 30, 1962.

Psychologists

The principal difficulty encountered in the preparation of a licensing statute is the definition of the area of employment to which the license shall be applicable. Where public understanding or professional experience has stabilized and crystallized the concepts involved, the difficulty is slight. With the development of psychology from an area of academic study subordinated in its practical applications to other disciplines into an area of practice sometimes separated from and sometime appropriately serving psychiatry, the problem of defining the area and activities of psychology have grown enormously. In 1946 the General Assembly avoided the problem in part by providing for the certification of clinical psychologists instead of licensing them. Although a Board selected by the Virginia Academy of Science makes the initial determination as to qualifications of applicants, the final certification is left in the hands of a psychiatrist, the Commissioner of Mental Hygiene and Hospitals. No real attempt was made to define the practice of clinical psychology, but in 1950 the Psychology section of the Virginia Academy of Science prepared a draft of a bill attempting to define clinical psychology and providing for licensure. However, the bill did not mark the point at which clinical psychology impinges on the healing arts and should be under medical supervision, nor would it actually have required medical supervision of those activities to which such supervision would be appropriate. Fortunately, that bill was not passed. At this session a bill was introduced simultaneously in both houses which would have provided for the certification of psychologists by a Board absolutely independent of the medical profession. Obviously, the difficulty of definition was here even greater and the draftsman therefore avoided it entirely and the only thing left from the 1950 effort at definition was a saving clause to the effect that the chapter would not authorize a certified psychologist to practice medicine. The Virginia Neuropsychiatric Society immediately perceived the danger that the practice of medicine by persons not educated for medical diagnosis and healing would be greatly extended and vigorously and successfully opposed the Senate bill when it was heard by the Senate Welfare Committee. The House Bill likewise died in committee. The council of the Society meanwhile went on record as opposing any legislation for the independent licensure or certification of para-medical groups.

The members of the Senate Welfare Committee then introduced a resolution calling for a study of the regulation of psychologists, but it died in the House Rules Committee.

Medical Examiners

Two bills directly affecting the Medical Examiner System were introduced. The first became law and increased the fee for each investigation from $10.00 to $15.00 effective March 30, 1962. The second would have required the Chief Medical Examiner to appoint each local medical examiner from a list of nominees submitted by the circuit judge. These nominations are presently made by the component medical society. This bill passed the Senate and, after considerable opposition was expressed and several amendments were considered, was killed in House Committee.

Medical Education

The differences of opinion as to the appropriate function and operation of the Medical College of Virginia resulted in the introduction of two resolutions in the House of Delegates in the first two weeks. The first would have created a joint legislative committee to review and evaluate the role and policies of the Medical College of Virginia. The second would also have brought the University of Virginia Medical College under review. Both of these resolutions died in committee. Another resolution creating a commission to conduct a broad study of medical education in the state, inquiring into "the role, policies, goals, programs and functions of the State supported schools of medicine," and the adequacy of the opportunities to obtain medical education in Virginia, was amended so as to direct that such a study be made by the State Council on Higher Education and was agreed to, as was a bill directing that Council study the need for a medical school in the Tidewater area.

Late in the session, after an accrediting team acting for A.M.A. and A.A.M.C. had made an investigation and rendered a complimentary report on the Medical College of Virginia, the House of Delegates agreed to a joint resolution expressing the General Assembly's confidence in

the Medical College of Virginia, but this resolution was not reported out by the Senate Committee to which it was referred.

Kerr-Mills

Your Society was eager that Virginia should make the best possible approach to the generally recognized problem of providing adequate medical care for the aged. The medical profession generally has rejected the approaches involving enlargement of the social security system for several reasons, but principally because the socialism they entail threatens the private practice of medicine and endangers the physician-patient relationship as we now know it. The only available solution which was not subject to this objection and which would not enormously increase the ultimate burden to the individual taxpayer was the Kerr-Mills legislation which was designed to meet the medical needs of the aged. This was recognized by the Society's House of Delegates, which went on record as encouraging the General Assembly to implement the Kerr-Mills Act, and by Governor Harrison, who recommended it in his inaugural address. As a result bills to implement the federal statute were introduced in both houses. The Senate bills carried an appropriation of about eight hundred thousand dollars so that the program could be begun in Virginia immediately. Federal and local participation would have made available in the biennium more than two million dollars for medical care of aged Virginians who are medically indigent. Experience in other states, however, had indicated that the people to be helped are slow to take advantage of this assistance, and the bills were amended so as to remove the appropriation for the first year, it appearing possible that a program might still be initiated in 1962-63 by the use of funds which this program would release from the Old Age Assistance program with which it would be integrated. In a further attempt at politically realistic economy, the legislation was amended so as to restrict the services to be provided to what seemed to be the most urgently needed forms of medical care, it being felt that experience with such a program would provide information as to cost with which to ultimately formulate the best program. When the bills reached the House Appropriations Committee, the appropriation was transferred to the Budget Bill and reduced to $250,000, and at the instance of the chiropractors, the medical service coverage was broadened to include services rendered by any person licensed under the Medical Practice Act. Fortunately, the chiropractors' amendment was defeated when the bills came to the floor of the House of Delegates.

Chapters 621 and 297 provide that Virginia residents 65 years of age who are in need of financial assistance in defraying the cost of "inpatient hospital care and treatment. outpatient hospital and clinical care and treatment, nursing home care, services by a physician holding a license to practice medicine, services, exclusive of making or providing new dentures, of a person licensed to practice dentistry, services of a professional nurse or registered practical nurse . . . and pharmaceuticals furnished on a written prescription" may receive such assistance upon a certification, as to need, by a doctor of medicine. The program will be set up in detail by the Commissioner and the Board of Welfare and Institutions. Payments on account of such assistance will be made directly to the person furnishing the medical supplies or rendering the service.

It is to be hoped that enactment of this legislation and similar legislation in other states will be recognized by Congress as an earnest and realistic effort by the States to care for their own older citizens in a manner consonant with our free enterprise system and the States' obligations in other areas of the body politic.

Employment of Older Workers

The General Assembly did not agree to a joint resolution for a commission study of the problems of retired and disabled persons, but it did direct the V.A.L.C. to study the employment problems encountered by persons over the age of 40.

Mental Hygiene and Hospitals

The General Assembly by Senate Joint Resolution 7 created a commission to study the mental hygiene laws of the State. Ten of the fifteen members will be appointed by the Governor, and of these one will be a member of the Medical Society and one of the Neuropsychiatric Society.

The per diem of the members of the State Hospital Board was increased from $10.00 to $15.00 and legislation was enacted providing that the business manager for the department shall be appointed by and serve at the pleasure of the Commissioner of Mental Hygiene and Hospitals, who shall prescribe his duties.

The Courts of Justice Committee failed to report a bill under which a committing judge would have been allowed to commit persons, for observation, to V.A. hospitals or other public institutions as well as to State Hospitals. A bill which would have permitted the Commissioner to place mentally deficient or retarded persons in institutions for training was also defeated, but a resolution calling for a study of services provided publicly and privately for mentally retarded persons was agreed to.

Heretofore, the Department of Mental Hygiene and Hospitals has been limited by statute to a maximum of $125.00 per month recovery from persons committed or admitted to its hospitals or colonies. These sums were collected through local Commonwealth Attorneys. Chapter 80 removed the $125.00 limitation and the only maximum limit on reimbursement is now the actual per capita cost of maintenance, or in the case of Virginia Treatment Center for Children an amount fixed by the Department, but not to exceed $15.00 a day for out-patients, $25.00 for day care patients, and $40.00 for in-patients.

Moreover, these amounts are now collectible in the manner in which debts due the State are collected.

Hospitals

The penalties for operating a hospital without a license were greatly increased at this session. Legislation was also enacted enabling the dissolution of local hospital authorities created under the Hospital Authorities Law where such authorities are no longer needed.

A bill to make hospital records admissible in evidence as proof of facts revealed therein died in committee.

For many years charitable hospitals in Virginia and other states have been immune from civil liability for personal injuries resulting from the negligence of their employees. The reasons for this immunity have been variously stated but public policy has been the continuing foundation for the protection afforded in the Virginia courts.

In Memorial Hospital vs. Oaks, 200 Va. 878, (1959), Justice Snead in upholding the rule of immunity indicated that a public policy so well established should not be changed except by legislative action. A bill was introduced to accomplish this and was referred twice to the House Courts of Justice Committee. Although the bill was not well phrased and did not seem to take account of the legal and financial relationships involving hospitals and their employees and patients, it was twice reported back to the floor of the House where it was defeated.

Radiation

One of two identical resolutions endorsing the proposal to build a Space Radiation Effects Laboratory in the Hampton Roads area, was adopted by the General Assembly.

Although the resolution would have directed the State Council of Higher Education to continue negotiations with the National Aeronautics and Space Administration for the operation and management of this laboratory, Chapter 604 of the 1962 Acts directed the governing bodies of the University of Virginia, William and Mary, and V.P.I. to negotiate an agreement for such operation and management.

A Senate Joint Resolution which would have directed the V.A.L.C. to study atmospheric pollution and continue its study of the peaceful uses of atomic energy died in House committee.

Drugs

The General Assembly enacted three bills relating to narcotics and dangerous drugs. Certificates from the Chief Medical Examiner's office may now be used in prosecutions under the Dangerous Drug Law upon the condition that the results of any analysis certified to shall be made available to the defendant before trial.

It is now a violation of the Dangerous Drug Law to try to obtain such drugs, or the administration thereof, by fraud, concealment, or the use of forgery or giving of false information.

The Uniform Narcotics Act was amended so that one of the narcotics which is exempted from the application of the Act, namely dihydrocodeinone or its salts, is no longer so exempted. The same Chapter amended the Act so as to empower the State Board of Pharmacy to exempt drugs found by it to possess no addiction-forming or addiction-sustaining liability, nor to permit practical recovery of such a drug.

Driving

The driver of a motor vehicle would have been affected by several bills introduced at the 1962 Session. Three hills rang the changes on possible ways of establishing a driver education program in the State. A substitute for one of them was adopted so as to require the State Board of Education to establish the program for the public school system and to double the fee charged for operators' and chauffeurs' licenses in order to provide the necessary funds.

Resolutions pointing towards a program to determine fitness to drive and creating a commission to study the problem of highway traffic safety were not adopted, but one directing the V.A.L.C. to study both matters was agreed to.

As a result of the amendments to the blood alcohol test section of the Code, any person who operates a motor vehicle on the highways of the State is deemed to have authorized a test of the alcoholic content of his blood if he is arrested for drunken driving, and he must take the test or stand trial for his refusal, with the penalty of conviction for unreasonable refusal being a suspension of his driving permit. If he submits to the test, the blood therefor is taken by a physician, registered nurse, or graduate laboratory technician, (where practicable a physician chosen by the accused), who follows a specific procedure, placing the blood in two sealed containers, one of which goes to the Chief Medical Examiner and the other of which goes to the accused or his attorney for testing by a pathologist or laboratory which has been approved by the State Health Commissioner. The Chief Medical Examiner's office and the pathologist or laboratory then certify their determinations to the clerk of the court, and the certificates are admissible in evidence. The rather elaborate provisions for the protection of the accused which were embodied in the former statute have generally been carried forward and abundantly supplemented.

A bill, which would have provided that the Chief Medical Examiner's certificate with respect to alcoholic content of blood should be admissible in civil cases as well as criminal cases, failed to pass.

Miscellaneous

Workmen's Compensation

The statute of limitations on workmen's compensation claims on account of disease was amended to restrict the filing of such claims to a period of three years from the date of the last injurious exposure to the disease.

State Board of Health

The per diem for members of the State Board of Health was increased from $10.00 to $15.00.

Nursing Scholarships

The one hundred annual nursing scholarships provided by the State were increased in value from $150.00 to $200.00.

Medical Research

The General Assembly enacted legislation giving the official approval of the State to the use of prisoners who volunteered for experimental State or federal medical research programs, such as have been heretofore carried on.

Transfusions

A joint resolution which would have directed the V.A.L.C. to study and report upon the extent to which

hepatitis and other diseases may result from blood transfusions and how such consequences might best be avoided died in the committee to which it was initially referred.

Venereal Disease

Section 32-91 of the Code which requires the reporting of cases of venereal disease was amended so as to require that laboratories performing positive tests for VD report such tests in the same manner as reports are made of cases of venereal disease, and so as to eliminate the requirements that the occupation of the subject and the probable source of infection be reported.

Immunization

Two general bills for compulsory immunization of children were killed this session in Committee, but the General Assembly did enact a compulsory immunization statute applicable only in Grayson County.

Milk

At the 1960 session of the General Assembly, the members were faced with completely divergent views as to departmental responsibility for inspection of milk. As a result, an interim study was conducted and a bill acceptable to hoth points of view was introduced in the 1962 session. This bill, which is quite lengthy, fixes the responsibilities of the Agriculture and Health Departments and was enacted by the General Assembly in an amended form.

Mid-Wives

HB335 embodied in statutory form the existing procedure for regulation of mid-wives by registration and issuance of permits.

Vital Statistics

The Governor vetoed a bill which would have amended the Code provision governing certification of births in Virginia so as to make it a misdemeanor to supply information knowing it to be false.

Insurance

Early in the session the Insurance and Banking Committee of the House of Delegates killed a bill which would have required insurance companies to make payments to podiatrists for services rendered to a holder of a policy of accident or sickness insurance covering the cost of services which could be performed either by a doctor of medicine or a podiatrist.

Dental Blue Shield

A bill was introduced to permit the formation of corporations similar to Blue Shield, for the purpose of providing dental or related services. The bill followed the Blue Shield statutes almost verbatim. Although it passed the House of Delegates, it was not reported out by the Senate Courts of Justice Committee.

The members of the Committee gave interested and valuable counsel with respect to the matters presented to them. Legislative members successfully devoted their best efforts to the support of legislation which the Society approved and it was only with the perseverance of Dr. Elliott that we now have a Good Samaritan statute. Particular acknowledgment should be made of the assistance of Dr. Lynch and Dr. Rawles at hearings on the Kerr-Mills legislation.

James D. Hagood, M.D., *Chairman*

Membership

The past twelve months have been quiet ones for your Membership Committee. No matters were referred to it, and no formal meetings were necessary.

Once again, the names of all new members have been published in The Virginia Medical Monthly. Your committee calls attention to the detailed breakdown of membership gains and losses which is included in the report of the executive secretary.

The committee is particularly pleased to nominate our president, Dr. Russell Buxton, for honorary active membership in the Medical Society of Virginia. Dr. Buxton has guided the Society through one of the most crucial years in the history of this nation. Under his leadership, Virginia physicians, as never before, took a strong stand on the King-Anderson approach to health care of the aged, and saw their efforts crowned with success.

William L. Sibley, M.D., *Chairman*
Marion W. Fisher, M.D.
A. A. Creecy, M.D.

Blue Shield Directors

The public's acceptance of the voluntary non-profit prepaid medical care program sponsored by the medical profession—Blue Shield—reached an all-time high as of June 30, 1962. 490,862 members were enrolled as of June 30, 1962, which includes more than 129,000 subscribers enrolled under the Federal Employee Program. About 20% of the population residing in the area served by Virginia Medical Service Association is now enrolled in the Plan.

Physicians' support of the Blue Shield Program continued high during the past year. At June 30, 1962, 1645, better than four out of every five physicians actively engaged in the practice of medicine in the area served by Virginia Medical Service Association, now participate in the Blue Shield Program. Although this is an enviable record, the participation of all physicians is needed if Blue Shield is to be strengthened and continue to provide an effective mechanism capable of meeting the needs of the public and the medical profession.

Virginia Medical Service Association also continued as Fiscal Administrator for The Medical Society of Virginia in the administration of the Medicare Program for the entire State of Virginia.

Earlier this year, in cooperation with Virginia Hospital Service Association (Blue Cross), the Virginia Medical Service Association introduced a Major Medical Program which will supplement base coverages offered by Blue Cross and Blue Shield. This new program will expand the scope of benefits to include areas of physician services not reached by base coverages. The availability of the Major Med-X Contract will permit Plans to offer a comprehensive in-hospital, home and office care program

which should adequately meet the needs of all groups and subscribers.

For the second consecutive year, the Richmond Blue Shield Plan made available the special Senior Citizens Contract to persons over age 65.

A third Professional Relations Representative was recently added to the Staff to better serve the medical profession. One of the three representatives resides in the Norfolk Area and services the physicians practicing in the Tidewater Area.

The Plan's financial position improved during the past year and its reserves now meet the recommended requirements for Blue Shield Plans.

All can be proud of the accomplishments of the past year by Blue Shield.

The Board recently has discussed the question of placing all services in pathology, anesthesiology, and radiology under Blue Shield, rather than Blue Cross. No action has been taken. Your Committee recommends that the House of Delegates go on record reaffirming Section 5 of the Statement of Principles: "Fees for services in the field of anesthesiology, radiology, and pathology should be included in Blue Shield contracts rather than under Blue Cross coverage.

The Committee recommends that the House endorse in principle the National Blue Shield Relative Value Fee Schedule.

W. Callier Salley, M.D., *Chairman*

Medical Service

Only one item was referred to the Committee during the year. This was a suggestion by a member of the Society that consideration be given to the Australian Plan for prepaid medical care. This Plan was discussed in the December 18, 1961, issue of Medical Economics. We recommend that this he read by all of those interested in this problem. Obviously, the Committee could not consider drafting a nationwide plan along these lines.

A review of last year's recommendations brought forth new recommendations in that a more encompassing resolution regarding liaison committees for hospitals be adopted. The Committee passed the following resolution: "That hospitals in Virginia establish a Committee or designate an existing Committee the study of the problem of utilization and also assist private insurance companies, Blue Cross-Blue Shield Plans and other responsible fiscal agents in the investigation of hospital claims."

The Committee recommends that The Medical Society of Virginia continue to appropriate $500.00 for 4-H Club Awards. Dr. James Peery officiated at these Awards in behalf of the Society and considers them well worthwhile.

The Committee wishes to recommend to the Council that it give consideration to the stand taken by the American Hospital Association concerning health and care of the aged. It was the belief of this Committee that the American Hospital Association stand is in opposition to the basic beliefs concerning the proper methods of financing health care for the aged.

The Health Insurance Councils of the Medical Service Committee had received several complaints during the year, all of which have been settled satisfactorily.

The Committee recommends that the basic principles adopted by the Association of Life Insurance Medical Directors for the purpose of dealing with practicing physicians be published in the Virginia Medical Monthly.

The Committee recommends that Mr. Howard take the necessary steps to have the Insurance Review Committee of our State Society listed with the A.M.A.

Since the last meeting of this Committee, Dr. James P. Williams of Richlands, Virginia, who had been a very active and hard worker on behalf of the Medical Service Committee, has passed away. Appropriate resolutions have been drawn.

Although the Committee has had very little to do during the year, the chairman wishes to express to each and every member his sincere appreciation for their willingness to assist in any way possible.

Charles L. Savage, M.D., *Chairman*
William A. Johns, M.D.
Walter P. Adams, M.D.
Ray A. Moore, Jr., M.D.
Snowden C. Hall, Jr., M.D.
Richard E. Palmer, M.D.
Barnes Gillespie, M.D.
W. C. Stone, M.D.
C. V. Cimmino, M.D.
James M. Peery, M.D.

Walter Reed Commission

The Walter Reed Birthplace house and grounds are being kept in excellent condition by the Walter Reed Community Improvement League.

A major repair of the roof of the back of the house will be necessary this year. The cost is estimated at $300.00.

There is need for parking space for visitors to the shrine. As soon as we can have a re-survey done to establish the property lines, we plan to grade and gravel a parking area.

Raymond S. Brown, M.D., *Chairman*
Thomas E. Smith, M.D.
Sterling Ransone, M.D.

Rehabilitation

The Rehabilitation Committee which serves as the Medical Advisory Committee to the Vocational Rehabilitation Service of the State Department of Education has continued to actively perform its functions during the year.

Individual committee members, located in various geographical areas and representing the various specialities have provided consultive services to the professional staff of the Rehabilitation Service on a continuing basis. Professional advice was given on a substantial number of rehabilitation case problems involving complicated medical problems.

At a regular meeting of the Rehabilitation Committee on August 27, 1961, it was recommended that a complete revision of fee schedule be undertaken. The Rehabilitation Service was requested to prepare a tentative schedule of fees for diagnostic medical services including radiology and laboratory as a basis for consulting with individual members of the committee in the various speciality fields. Diagnostic and x-ray schedules have been completed and published. On May 6, a subcommittee met in Richmond for basic planning in the revision of the Surgical Fee

Schedule. The completion of this work is in progress. It was felt by committee that complete revision of Surgical Fee Schedule was indicated to clarify and make complete the list of procedures that could be provided by rehabilitation to vocationally handicapped individuals.

Several members of the committee have worked actively with those responsible for in service staff training of rehabilitation counselors. Training was provided in prosthetics and orthotics with several members of the committee participating as instructors or consultants. In other conferences of the professional staff, training was provided in the fields of mental illness and mental retardation.

Roy M. Hoover, M.D., *Chairman*
George A. Duncan, M.D.
J. R. Blaylock, M.D.
Leroy Smith, M.D.
G. S. Fitz-Hugh, M.D.
Reno Porter, M.D.
Charles L. Savage, M.D.
F. J. Wright, M.D.
Frank B. Stafford, M.D.
A. Ray Dawson, M.D.
J. Treacy O'Hanlan, M.D.
John N. Pastore, M.D.
W. Kyle Smith, M.D.
Alexander McCausland, M.D.
James L. Thomson, M.D.
Carney D. Pearce, Jr., M.D.

Radiation Hazards

At the 1961 meeting of the House of Delegates of The Medical Society of Virginia, the House approved in principle proposals for legislation governing the use of radiation sources, which were submitted by this Committee. The proposals were the result of an analysis of data obtained in the course of the 1960 registration of radiation sources required by Senate Law No. 28, were in accord with experience in other states and with Atomic Energy Commission advice, and were wanted by the State Health Department. However, they did not get to the floor of the Legislature.

As a result of discussion at the recent Governors' Conference, our Governor has become interested in the subject, and his interest has stimulated the Committee to a fresh effort which will be the subject of a supplemental report at the fall annual meeting of the Society.

George Cooper, Jr., M.D., *Chairman*
Mack I. Shanholtz, M.D.
Hunter B. Frischkorn, M.D.
Charles D. Smith, M.D.

Aging and Chronically Ill

Your committee has been quite active this year, meeting usually after the quarterly meetings of the Joint Council to Improve the Health Care of the Aged.

Your chairman attended the Annual Conference of the Joint Council to Improve the Health Care of the Aged in Chicago in December 1961, and a full report appeared in the May issue of the Virginia Medical Monthly. Your chairman also appeared before the finance committee of the General Assembly of Virginia and also before the House Finance Committee to present facts related to the implementation of the Kerr-Mills bill which was passed by a legislator, not to go into effect however before 1964. Your chairman also represented Dr. Thomas Murrell, councilor from the Third District, at a meeting in Washton with both Senators and nine of our Virginia legislators to inform them of our opposition to the King-Anderson and Social Security approach of the medical care of the aged. We were briefed by the Washington office of the American Medical Association which we feel is doing a very outstanding job in representing American medicine at the national level. They had experts on the House, the Senate and both parties who spoke to us very frankly of how they saw the picture. We then had luncheon in the Speaker's Dining Room with our legislators and were encouraged by both Senator Byrd from the point of view of the Senate and by Mr. Burr Harrison who is on the powerful House Ways and Mean Committee that if the King-Anderson bill could be kept in committees that there is very little chance of its passing during this congressional session.

We have spoken before the Association of Retired Persons here in Richmond in an effort to explain medicine's position in the current controversy. We realize that even though the King-Anderson bill may be defeated in this session of Congress it will be an active issue for the next year and we will expect to do everything we can to inform the public. We believe that time is in favor of our position that if the public is more informed about the dangers of socialized medicine they would not want any part of it. Your committee hopes to continue to devote its energies in this direction.

Dr. H. B. Mulholland, Dr. Malcolm H. Harris and I participated in a Regional Conference on Aging sponsored by the American Medical Association in Charlotte, North Carolina, April 12, 13 and 14, 1962. This meeting was attended by representatives from Alabama, Florida, Mississippi, Georgia, North and South Carolina, and Virginia. About four hundred people attended the conference. Dr. Mulholland presented a very interesting paper and your chairman was asked to take part in a workshop session. North Carolina, and Charlotte in particular, have an outstandingly progressive attitude toward trying to solve some of the problems of aging. I think we all felt stimulated by our attendance at this meeting, that the work can be done along private lines without relying on stultifying government subsidy.

The present officers of the Joint Council to Improve the Health Care of the Aged have served for two years and at the last meeting held here in Richmond May 17th, Dr. James M. MacMillan was named chairman for the Joint Council; Dr. Peter Triani, a dentist with the State Board of Health, was named secretary-treasurer; and Mr. Arthur B. Fowler, of the Virginia Nursing Home Association, was named vice-chairman. The new members will take their office at the October meeting of the Joint Council.

John P. Lynch, M.D., *Chairman*
H. B. Mulholland, M.D.
Elam C. Toone, Jr., M.D.
Mack I. Shanholtz, M.D.
Malcolm H. Harris, M.D.

James M. MacMillan, M.D.
Irving Berlin, M.D.

Medical and Allied Organizations

This Committee has had a very quiet year, in that, there have been no requests for a meeting. Last year this Committee was extremely busy, and either the Committee did a very good job and solved all the problems, or it did a very poor job and, consequently, there are no requests for further meetings. We trust it is the former of these two possibilities.

McLemore Birdsong, M.D., *Chairman*

National Emergency Medical Service

With the orbiting of man into space, and the South Viet Nam crises interest in disaster planning has increased tremendously. There are still too many who are apathetic or feel that in the case of the thermo-nuclear explosion we have no chance for survival and therefore are unwilling to prepare for any emergency.

In Virginia, while not entirely satisfied with our medical plan for emergency for there are many things to be done, we feel we have a sound workable plan. Eighty-two out of one hundred thirty-two localities have all Civil Defense plans, including medical, completed and approved. Most of the remaining localities have completed the medical plan, and all of the larger hospitals have disaster plans in effect, for both hospital and local disasters.

As some of you may know, we had an excellent chance to see our disaster plan in action during the coastal disaster in March. I am happy and proud to state that the preparations made, following the plan, proved to be excellent.

We have four inactive reservists of the USPH Service in Virginia, and all four, although there is no pay attached, are still performing a yeoman job for Civil Defense and disaster training.

There has been, and still is, excellent cooperation between the State Department of Health, the Office of Civil Defense, and The Medical Society of Virginia plus its component societies. They are not only supporting the medical plan, but are actively participating in our training program. Many local societies are having entire meetings devoted to disaster medical service alone. Many of them have appointed a physician to head up our Medical Care Program in cooperation with the local Health Director. Recently the Virginia Academy of General Practice has formally organized a Committee for Emergency Medical Service and are cooperating actively with our Committee, the State Department of Health, and the Office of Civil Defense.

We are very proud of one innovation in the past year. Since the State Health Department, by law, is responsible for radiation health in Virginia, and many problems arise determining safety factors in schools and fallout shelters, in radiation monitoring, and in calibrating instruments, we have organized a Radiation Protection Committee to advise both offices on such problems. This Committee meets monthly and is composed of four physicians and seven radiation specialists. These gentlemen are: three radiologists, one director of research, one geneticist, one biophysicist, one health physicist, one college president and physicist, two professors of nuclear engineering, and one atomic advisor to a manufacturer of reactors. This Committee also passes upon the capabilities of instructors for monitoring courses.

In June 1961, an interesting training program was held —"Operation Medical Airlift 1961". This was to test the Medical Plan of the State Health Department, especially the airlifting of a 200-Bed Civil Defense Emergency Hospital, with other medical supplies and personnel from another section of the State to Accomac County on the Eastern Shore—the site of much damage in the coastal disaster. This test was also used to test Accomac County's Operational Survival Plan, with emphasis on the Medical Plan. This most successful exercise was sponsored by the Office of Civil Defense, and was supported by the U. S. Air Force (2 C 119 box cars), the Virginia National Guard, the Virginia Wing, Civil Air Patrol (40 planes), and the State Health Department.

At the present time Virginia has thirty-five prepositioned 200-Bed Civil Defense Emergency Hospitals, and four previously purchased by the State with matching funds. There are nine applications for the expanded hospital awaiting availability. The present hospital has medical supplies for three days; the expanded hospital will remain at 200 beds, but will have supplies for thirty days, thus doubling the size of the hospital. All have been notified of the expansion of the Civil Defense Emergency Hospital. We have found the lack of an adequate training manual on the hospital to be a serious handicap. Our training hospital has been displayed twice and we now have three requests on hand for demonstrations.

Training for disaster has been continuous, and is increasing rapidly. Five courses in Environmental Sanitation (expansion for disaster) has been given 250 sanitarians. More will be given this fall.

Courses in radiation monitoring are continuing. To date, there are 199 State agency monitoring stations, and 181 in cities and counties. More are being trained at this time. Thirty-two general hospitals have indicated their desire to participate in our State monitoring network, and preparation for this training is now under way, five training schools having been set up for June 1962, covering the State.

The chairman acted as a chief umpire for the exercise Prep Pitt V in Pittsburgh in May. This was a tremendous exercise, but it showed that other states have the same problem as Virginia, the updating of the hospital plans for disaster, and the need for supervised realistic testing of the plan.

At the present time the Medical Self-Help training courses are very active. Virginia received seventy-six kits in late January and we estimate that to date, approximately 250 people have completed the course and about 1,250 are in training now. We hope to complete training for 6,000 by June 30. In Virginia, each local health director is responsible for these courses, orienting his own health department plus a few selected instructors. These instructors then begin actual training courses.

This has been an exciting as well as instructive year, and the State Medical Plan can be said to have proven itself.

W. Ross Southward, Jr., M.D., *Chairman*
Coleman Booker, M.D.
David J. Cracovaner, M.D.
E. Cato Drash, M.D.
Frank A. Kearney, M.D.
Meyer I. Krischner, M.D.
William A. Read, M.D.
Charles R. Riley, M.D.
Charles D. Smith, M.D.

Nurse Examiners and Organized Nursing

The Committee met with these groups on June 13th, with Mr. Howard and most of its members. The Nurse Examiners reported renewing certificates on 13,499 professional nurses in 1961, an increase of more than 500 over 1960. More nurses came into Virginia from other states and particularly from other countries, these heing from Canada and England. Of those renewing, 9,000 were employed in Virginia, an increase of 775 over 1960. There are 2,243 professional nurses registered in Virginia but not working and an equal number registered in Virginia but living outside the State. Our educational system produced 602 new professional nurses in 1961, an increase of 44 over the year before. Approximately 25% of the candidates failed the October, 1961, examination. There were few cases requiring disciplinary action in 1961, among professional nurses. There are presently twenty-eight schools for professional nurses in Virginia with 2.269 students enrolled. Two schools are closing in 1961-1962.

In practical nursing, 4,000 certificates were renewed in 1961, an increase of about 200 over 1960. Four hundred and fifteen were licensed by examination, 83 less than the year before. The percentage of failures was 11%. Twenty-seven hundred and sixty-seven practical nurses are actively at work in Virginia, an increase of about 200 over 1960. There are twenty-two schools for practical nursing with 726 students enrolled, an increase of 170 over one year ago.

The high rate of failures of professional nurses taking the examinations was attributed to many factors especially poor admission, promotion, and graduation policies and poor high school preparation. There is a need for curriculum evaluation and revision and a new approach in teaching in some instances. The Board has attempted to improve the situation by survey visits and by regional educational conferences of nursing faculties. There is a need for better qualified faculty members and a more productive recruitment program, it now being necessary to admit about 50% of applicants. Virginia physicians can help by encouraging well qualified high school students to enter nursing and the Medical Society of Virginia will again be asked to contribute to the preparation of a hrochure for the attraction of student nurses into the field, about $300 being needed this year.

It is of interest to note that the scores of Virginia professional nurses on National Board Examinations is about average for the nursing schools of the South, but regrettably somewhat below the actual National mean. Notwithstanding, your committee felt that this bears a rather direct relationship to poor preparation of students in our public school system; we also feel that the Virginia Board of Nurse Examiners is making an outstanding effort to study the situation and improve it where possible.

As regards our conference with organized nursing, represented by the Virginia State Nurses Association, we found much common ground for discussion. Organized nursing in Virginia represents about one-third of our professional nurses. All should be encouraged to participate, though it is not a body without strength. This committee felt that professional nurses should gain protection under a revision of the Civil Defense statute in Virginia in that the latitude of their duties is necessarily increased during Civil Defense emergencies. We felt that accreditation of nursing homes by a national accrediting group is desirable even as accreditation of hospitals has proved to be. We agreed that the training for health occupations under the Manpower Development Act of the 1962 Congress, deserves watching, so that a proper balance of personnel is maintained. We agreed that no new practical nurses should be licensed under waiver but should be licensed in accordance with present practices as a result of our training programs or by reciprocity with other states. Your committee tried to strongly present the case of organized medicine supporting the Kerr-Mills method of providing medical care for the aged as opposed to that suggested by King-Anderson. It is unlikely that we changed the attitudes of the Virginia State Nurses Association which favors the latter. This committee agreed that the long-term goal of basic nursing education for professional nurses should be a B. S. degree as opposed to the diploma program, this being the prevailing attitude in Virginia. We also agreed that the implications for nurses of closed chest cardiac resuscitation should be clearly outlined to them in each institution by medical staffs; the American Heart Association has instructed nurses that only those properly trained should use the procedure and your committee presumes that this is probably wise.

John R. Mapp, M.D., *Chairman*
John P. Lynch, M.D.
James M. Moss, M.D.
Julian R. Beckwith, M.D.
R. Earle Glendy, M.D.

Highway Safety

The splendid record of automobile safety legislation accomplished by the 1962 session of the General Assembly, under the leadership of Governor Harrison, highlights this report of your committee on Highway Safety. The recently passed laws designed to reduce the mounting number of automobile accident fatalities are the implied consent law, compulsory seat belt installation, state assistance in high school driver education courses, and increased fines and penalties for drunk driving and traffic violations.

In addition, the General Assembly has recognized the difficult and continuing problems of highway safety and has directed the Virginia Advisory Legislative Council to study the establishment of a program to promote highway safety.

The medical aspects of this study will be of importance. The task of formulating practical legislation pertaining to the physical requirements of applicants for driver's license is a formidable one. Fortunately the council will be helped by the experience of the comprehensive plan now in operation in the State of Pennsylvania, and the experience of Commissioner Lamh and the Department of Motor Vehicles.

Also the Virginia Advisory Legislative Council will consider the proposals presented by the Committee on the Prevention of Automobile Deaths and Injuries of the Albemarle County Medical Society under the chairmanship of Dr. Woodward. The proposals include suggested legislation relative to (1) driver education. (2) licensure, (3) medical referral committees, (4) driving permits, (5) the drinking driver, (6) speed and reckless driving, and (7) automotive design.

The impact of increasing highway traffic and the rising highway death toll will require the broad approach advocated by Dr. Woodward; by 1972 there will be twenty-five million more motor vehicles than there are today. The complexity of the traffic problem has received careful consideration at the meetings of the Governor's Highway Safety Committee of which your chairman is a member of the Advisory Committee. This group is composed of dedicated officials of the State Police and other state agencies, and representatives of many state organizations and safety councils interested in highway safety. These gentlemen recognize the tremendous difficulty of educating a disinterested public in safety measures, and the difficulty of formulating practical legislation.

The attention of physicians should be called to the tripartite E concept of highway safety—Enforcement, Education, and Engineering.

Of these three, wise but strict police and judicial enforcement of traffic regulations is the most important. There is a need for a greater number of highway patrol cars; the deterrent effect of a patrol car on faulty driving is considerable. The function of the highway patrol in preventing accidents is equally great. The policy of warning the careless driver and counseling the inadept driver should receive more attention. In order to identify the habitual from the occasional offender, a punch card system on the driver's license has been shown to be of value. When warned or advised the driver should be notified by a follow up letter to indicate his deficiency has been recognized and recorded.

Progress in highway safety education has been significant. By persistent use of all means of communication the public is gradually developing an awareness of the dangers of the automobile. High school driving courses and the official presentation of driving permits have identified the responsibility of the beginning driver. There is a need for adult training courses for the poor driver and the frequent offender.

In the area of engineering, highway construction and design is keeping abreast, as rapidly as possible, with the increase in number of cars on the highway. Greater stress should be paid to strict periodic automobile inspection; recent studies have indicated that mechanical defect, rather than speed, drunk driving or fatigue is a factor in some fatal accidents. Automobile safety design, however, has shown little evidence of progress; there is reluctance on the part of the manufacturer to adopt safety features.

Seat belt installation will be compulsory in 1963; the next problem is to convince the public to use them. It is said only one in twenty drivers whose cars are equipped with seat belts bother to fasten them. The members of The Medical Society of Virginia should use seat belts, not only for their own protection, but also to set an example for the public to follow.

F. H. McGovern, M.D., *Chairman*

National Legislation

Although this has been an unusually busy, and sometimes trying, year for your committee, it has nevertheless had its rewards. Particularly gratifying is the fact that physicians in Virginia, and for that matter over the nation, closed ranks as never before and presented a solid front to a common enemy—namely the King-Anderson Bill. The containment of the bill—although perhaps only temporary—provides an excellent example of what can be accomplished when people join forces for a cause which they believe is right.

The committee would like to call attention to a few of the important activities which, in one way or another, touched upon the King-Anderson controversy.

Congressional Luncheon: For the third successive year, your committee sponsored a luncheon at the Capitol for Virginia's congressional delegation. It seems safe to say that this year's session was easily the most interesting and worthwhile of all—only one congressman being absent. Members of the committee came away with the knowledge that Virginia is indeed fortunate to be represented by such able men.

Speakers: The Society obtained a number of speakers for civic organizations and other groups on the subject of health care for the aged. Dr. William LaMotte, Wilmington, Delaware, was brought in on two occasions with the cooperation of the AMA National Speakers Bureau. Sixteen speaking engagements were actually fulfilled.

Television: Three television programs were arranged, or presented, with Society assistance.

Advertisements: Although a number of component societies sponsored ads in their local papers, The Medical Society of Virginia gave special assistance to physicians in the Seventh District—a key area since Congressman Harrison was a member of the House Ways and Means Committee.

News and Views: This bulletin appeared for the first time in February and proved extremely valuable in keeping the membership informed. Many physicians used it as reading matter for waiting rooms and some obtained additional copies for various purposes.

Field Representative: Through the cooperation of The Virginia Medical Service Association (Richmond Blue Shield Plan), the Society was able to obtain the part time assistance of Mr. Tom Martin for the crucial five-month period of March-July. Mr. Martin visited offices of every component society and gave special assistance to societies in key localities.

Your committee urges all members to look ahead to January, 1963, and the new Congress. The next few

months provide us all a wonderful opportunity to engage in public education activities.

Harry C. Bates, Jr., M.D., *Chairman*
Vincent W. Archer, M.D., *Vice-Chairman & Special Consultant*
Paul Hogg, M.D.
K. K. Wallace, M.D.
Thomas W. Murrell, Jr., M.D.
A. Tyree Finch, Jr., M.D.
William N. Thompson, M.D.
Alexander McCausland, M.D.
Dennis P. McCarty, M.D.
James G. Willis, M.D.
W. Fredric Delp, M.D.
Richard E. Palmer, M.D.

Medicare Advisory

Three meetings of your committee were held during the past year, and a goodly number of claims requiring special consideration were reviewed. The recommendations of the committee were most often necessary because of the unusual nature of the case or the absence of pertinent directives. In those cases where directives were clear, the committee had no alternative but to recommend compliance. It is hoped that all physicians whose claims were reviewed will understand the committee's position and responsibility.

Once again, the committee would like to point out that physicians should always charge their usual fee—even when they have reason to believe it might be lower than the maximum fee permitted under the medicare program. A great deal of trouble and delay for all concerned would then be eliminated.

The chairman is sincerely appreciative of the cooperation he received from committee members. They contributed many hours of hard work in the interest of the public and profession.

W. Linwood Ball, M.D., *Chairman*
Hunter B. Frischkorn, M.D.
Richard Michaux, M.D.
William E. Byrd, M.D.
Thomas Hunnicutt, M.D.

Mental Health

The Mental Health Committee met on March 28, 1962, and on July 10, 1962.

The committee was saddened by the death of one of its members, Dr. G. Edmund Stone, Superintendent of DeJarnette Sanatorium, which occurred September 27, 1961. Dr. Stone had rendered valuable service to the committee during the years he was one of its members. Dr. R. Terrell Wingfield of Lynchburg was appointed by Dr. Russell Buxton, President of The Medical Society of Virginia, to the vacancy caused by the death of Dr. Stone.

The chairman of the committee again represented the committee and The Medical Society of Virginia at the Eighth Annual Conference of Mental Health Representatives of State Medical Associations held in Chicago, Illinois, on February 2-3, 1962. The meeting was primarily concerned with plans for the First National Congress on Mental Health which is to be sponsored by the American Medical Association on October 3-4, 1962, in Chicago. It was learned that the Congress will give much attention to the report of the Joint Commission on Mental Illness and Health. The report, entitled "Action for Mental Health", is the result of a five-year study carried on by a number of groups and organizations.

The report of the Joint Commission Action for Mental Health, and especially the position statement on the report which was adopted by the Council of the American Psychiatric Association, was discussed at both meetings of the committee. It was the unanimous opinion of the committee that the committee go on record as being encouraged by the vigorous start and concerted effort which have been made toward implementing a truly national mental health program. The committee, although not in complete accord with all statements made by the Joint Commission, recognizes the fact that with proper guidance the report can represent a giant step in the right direction. It is hoped that the medical profession throughout the State of Virginia will lend its support to this very important project.

At the first meeting of the committee Mr. Robert Denzler, the newly appointed Executive Director of the Virginia Medical Service Association, gave an encouraging report concerning the possible consolidation of the Blue Cross-Blue Shield Plans in Virginia. (The Norfolk and Richmond Blue Cross Plans have consolidated since Mr. Denzler's report to the committee.) The committee feels that the consolidation of all of the Virginia Blue Cross-Blue Shield Plans would be a step forward toward the elimination of the discrimination now practiced by some of the Plans in Virginia in regard to coverage for mental illness. The committee hopes that the Society will assist in every way possible to effect such a consolidation.

At the first meeting of the committee in March, the chairman was instructed to attempt to place a speaker from the field of mental health on the program for the annual meeting of The Medical Society of Virginia which this year is to be held jointly with the District of Columbia Medical Society in Washington, D. C. The chairman of the Program Committee was written signifying the Mental Health Committee's wishes. A reply was received eventually, stating that it was with regret that it would be impossible to put a paper on psychiatry on the program this year.

The committee once again endorsed the American Psychiatric Association's Postgraduate Psychiatric Training Program for those physicians in general practice.

The chairman called to the attention of the committee at its second meeting that on June 19, 1962, Governor Harrison announced the appointment of a fifteen member commission to make a study of state laws relating to mental hygiene. Senator Edward A. Willey who sponsored the legislation was invited to attend the meeting held on July 10 to discuss the commission's plans. Senator Willey told the committee that the Virginia statutes contained many antiquated laws on mental illness, that these would be reviewed with the idea of making recommendations to the Governor concerning such changes and modernization that were deemed advisable. He also stated that the commission would consider a wide range of subjects, including commitment procedures, medical and psychiatric problems, administrative problems, penal

provision, etc. The committee agreed to place itself on record as endorsing the objective of the commission as set forth by the General Assembly.

It was brought to the attention of the committee that the psychiatrists throughout the state are becoming increasingly concerned about the relationship between clinical psychology and the practice of medicine. This was forcibly brought to their attention by the recent efforts of the psychologists of the state to change the existing certification law in such a way that it would completely remove any supervision of the practice of psychology by the medical field.

After hearing the report of a representative of the Neuropsychiatric Society of Virginia concerning their study of this matter, it was the feeling of the Mental Health Committee that the matter should be thoroughly investigated by an appropriate committee with special consideration as to whether or not clinical psychologists, if they continue to be certified by the State, should then have the certification under the control of the State Board of Medical Examiners, as are other so-called practitioners of the Healing Arts, and that their relative status to medicine in the area of diagnosis and treatment of illnesses be clearly delineated. It was the consensus of the committee members that this matter should be referred to the Council for its consideration and possible action.

It is hoped that the Neuropsychiatric Society of Virginia will continue to appoint a liaison committee to meet with the Mental Health Committee to discuss subjects of mutual interest to both groups.

The chairman wishes to express to the remainder of this committee and to Mr. Robert I. Howard, Executive Secretary, his appreciation for their cooperation and assistance in the formulation of this report.

JOHN R. SAUNDERS, M.D., *Chairman*
THOMAS S. EDWARDS, M.D.
ROBERT C. LONGAN, JR., M.D.
JOSEPH R. BLALOCK, M.D.
MILTON S. GOLDMAN, M.D.
SAMUEL S. MORRISON, M.D.
R. TERRELL WINGFIELD, M.D.

Insurance

Since so many matters of interest to the membership were considered by the committee during its meeting on March 21, it seems advisable to include the complete minutes in this annual report.

"The Chairman advised the committee that the Council had approved the savings and retirement program as proposed by the William M. Werber Agency of Washington. He then introduced Mr. Werber and asked that the committee be acquainted with plans for implementing the program. The program is designed to take advantage of Keogh Bill provisions if and when the legislation is passed by the Congress. The plan will be underwritten by the Minnesota Mutual Life Insurance Company and is extremely flexible. A physician may deposit any amount ranging from $100 to $2,500 annually.

Mr. Werber went on to mention the new professional association law recently enacted by the Virginia General Assembly. It was his feeling that the program should be set up in such manner that the various groups could participate.

Mr. Werber then explained an accidental death and dismemberment policy which he believed to be exceptional. The plan would make available an accidental death or dismemberment principal sum of from $5,000 to $100,000 at an annual premium rate of 72¢ for each $1,000. If a disability benefit were added making the principal sum available in the event of permanent and total disability, the premium rate would be 78¢ for each $1,000. The only exclusions are those involving war or suicide.

Dr. Giesen then introduced Mr. Don Clifford and Mr. Andrew Sale for the purpose of presenting a progress report on the Society's professional liability insurance program. Mr. Clifford stated that the new premium provisions had been approved by the Insurance Commission and would have March 7 as the effective date. He went on to say that the experience of those paying the physician's rate had been extremely good, but that the loss ratio for surgeons was just about at the break-even point. As far as the overall experience is concerned, Virginia rates unusually well. As a matter of fact, there are only two states which have premium rates as low or lower.

Mr. Clifford then reported that a new educational film is available for component medical societies and can be obtained through The Medical Society of Virginia. He concluded with the suggestion that all physicians be urged to hold on to their old professional liability policies. With the laws governing malpractice as they are, an old policy could conceivably be put to good use.

The committee then heard Mr. David a Dyer report on the Society's major hospital and business overhead programs. He stated that there had been no cancellations of major hospital coverage because of the recent premium increase. The loss ratio, however, is still 125 percent and this caused committee members some concern.

The business overhead program, on the other hand, is returning a good profit to the company. A total of 800 physicians have been enrolled thus far under the two plans.

There followed considerable discussion as to whether a second sickness and accident program, proposed by Mr. Dyer, should be given serious consideration. It was brought out that many physicians desire more coverage than the $250 per week maximum available under the existing program. The thought was also expressed that the Society's sponsorship of two programs might conceivably prove a serious handicap to both.

The committee then went into the executive session. Its first action was to adopt a resolution recommending that the savings and retirement program be expanded in such manner as to enable professional associations to participate. The motion requested clearance by the Executive Committee of Council.

It was then moved that the accidental death and dismemberment coverage proposed by the Werber Agency be recommended for approval by the Executive Committee of Council. The motion carried.

The committee then discussed a suggestion made earlier by Mr. Werber that a booklet be prepared for the membership setting forth the various insurance programs sponsored by the Society. It was the consensus that such a booklet should be prepared as soon as practicable.

Considerable discussion followed concerning the proposal to sponsor a second sickness and accident program underwritten by the Fireman's Fund. Although the second plan would be primarily intended to supplement the existing program, there was some question as to whether competition, which would surely develop, might prove detrimental to both programs.

It was then moved that both the Loyalty Group and Fireman's Fund be approached concerning the possibility of bringing their premium schedules into some degree of similarity, in order that coverage offered by the latter company would be purely supplemental when offered under the sponsorship of The Medical Society of Virginia. The motion was adopted.

A question was raised as to whether optional hospital and medical coverage available through America Fore-Loyalty Group is in competition with the Society's existing hospital program. It was moved that the Chairman and Executive Secretary contact America Fore-Loyalty Group and determine whether such coverage is, in effect, competitive with the major hospital program underwritten by American Casualty.

The motion was adopted."

The Executive Committee of Council subsequently approved the resolution recommending that the savings and retirement program be extended to professional associations. The accidental death and dismemberment coverage was also approved.

Your committee sincerely believes that the new programs are worthy of careful consideration. They represent another service provided by your Society.

The committee takes this opportunity to express its deepest regret over the untimely death of Dr. J. R. B. Hutchinson.

ANDREW F. GIESEN, M.D., *Chairman*
W. D. LEWIS, M.D.
A. L. HERRING, JR., M.D.
ROBERT S. HUTCHESON, JR., M.D.
C. M. MCCOY, M.D.

Conservation of Hearing

It is gratifying to learn from the reports of the members of the Committee on Conservation of Hearing, especially those connected with the Virginia Hearing Foundation, Inc., and those members on the staff of our Medical Schools who are training young doctors, that continued interest and research is being done to rehabilitate those who need help.

The active programs in Richmond, Norfolk, Charlottesville, Bristol, Lynchburg, Danville, Bluefield and Rocky Mount are furthering their work, and with the comple- of the Rehabilitation Center in Roanoke, another complete service has been added to the growing list. At the Medical College of Virginia, a full time teacher has been added for the pre-school out-patient child with hearing problems. The Virginia Hearing and Speech Foundation, Inc., at Charlottesville, completed its tenth year of activities by evaluating over 11,000 children during the year ending June, 1962. This represented almost a 100% increase over the previous year. The Foundation's work is held in the highest esteem, and according to the Superintendent of Charlottesville Public Schools, "the work of the Virginia Hearing and Speech Foundation, Inc., is one of the greatest services ever extended the children within my school experience".

An active part of the Virginia Hearing and Speech Foundation is the field service which it offers, namely, the standard audiometric screening of hearing, and the "teacher-referral" method.

No. 1. The standard audiometric screening of hearing which is to determine the number of children in a school system who have impaired hearing and the severity of loss to make accurate referrals and to advise the parents on the treatment of their children.

No. 2. The hearing diagnostic clinic in which children are selected for these evaluations by the "teacher referral" method. The child is given a speech and hearing evaluation, case histories obtained, and evaluated after results have been analyzed, the parents are then counseled, and proper referrals are made.

The service teams are composed of advanced students in audiology and speech pathology at the Speech and Hearing Center at the University of Virginia. Nearly 4% of the children evaluated had some hearing disorder with the majority classified as slight. Hearing aides were provided for the medically indigent. The Bristol and Bluefield Speech and Hearing Center continued an active program in Southwest Virginia. The Roanoke Rehabilitation Center opened July 1st, and is expected to contribute a complete service for the hard of hearing. However, it will take a little time for complete organization of the department. Surgical techniques for improving the hard of hearing continue to produce good results, for an increasing number of patients. The tympanoplasty operation is producing some dry ears and restoring partial hearing in many cases, and is believed to be an excellent approach for improvement in selected cases.

The Committee wishes to recognize the efforts of the many service clubs and individuals who have contributed of their time and money in helping these children. The Committee further notes with appreciation, the loyal support and co-operation from the membership of the Virginia Society for Crippled Children and Adults and the State Board of Health and Education.

CALVIN T. BURTON, M.D., *Chairman*
NEIL CALLAHAN, M.D.
FLETCHER D. WOODWARD, M.D.
JOHN B. GORMAN, M.D.
JOHN G. SELLERS, M.D.
W. COPLEY MCLEAN, M.D.
PETER PASTORE, M.D.

Medical Education

Your committee met on two occasions during the past year, and it seems safe to say that they were perhaps the most important meetings in its history Medical education, like most other things these days, is beset with problems, and the understanding of all physicians is absolutely necessary if reasonable solutions are to be had.

A considerable portion of the two meetings was given to a frank and thorough discussion of a study of conditions at the Medical College of Virginia conducted by a Special Committee of the Richmond Academy of Medicine.

Matters discussed ranged from the education program per se to communications at the local level.

The committee heard from representatives of the College as well as members of the Richmond Academy committee. It was the consensus that many of the problems cited are not confined to Virginia—but in reality are national in scope. Everyone believed that a great deal of good had already been realized from frank discussions held between Richmond physicians and College officials.

The committee, noting that it was not its intention to attempt definitive action, recognized the seeming lack of adequate communications between the College and area physicians, and recommended that every effort be made to correct this condition through meetings of men of good will. The committee wanted it known that it stands ready to assist such efforts at any time.

The future role of community hospitals in post-graduate educational programs was considered, but it was thought best to defer action until an AMA ad hoc Committee on Internships and Hospital Services makes its report on the subject. This is expected in the not too distant future.

While considering the intern problem, the committee heard an interesting suggestion that medical schools consider exchanging their interns for foreign interns in community hospitals. One of the reasons advanced was that those graduates who stay on at their schools for their internships are often poorly prepared for practice. The Deans of both medical schools were requested to study the matter and report their thoughts and recommendations at a future meeting.

Your committee took a close look at various scholarship and loan programs available to medical students in Virginia and learned that more funds are needed. Included among the suggestions was one that The Medical Society of Virginia consider setting up some type of revolving loan fund—increasing membership dues for such purpose if necessary.

Subsequent to the committee's consideration of the loan problem, AMA announced a new Medical Education Loan Program—designed to provide as much as one-half the cost of a medical education. The Program permits a seven year borrowing period and as much as ten years in which to repay. It is available to any medical student, intern or resident in full time training at an approved American medical school or hospital.

In view of the AMA action, many committee members feel that one strong program—supported by all state medical societies—would be more effective than many smaller ones.

The fact that the AMA program follows the loan approach endears it to many. Council will be requested to discuss the matter of Society participation at its next meeting.

In closing, your committee would like to again stress the fact that good, sound medical schools stand as a strong barrier to those who would socialize all phases of medicine. These schools deserve our strongest support.

Allen Barker, M.D., *Chairman*
Malcolm H. Harris, M.D.
William F. Maloney, M.D.
Thomas H. Hunter, M.D.
Shelton Horsley, III, M.D.
John C. Watson, M.D.
Russell M. Cox, M.D.

Liaison to State Bar

Only one meeting has been held—January 11, 1962. It convened at 9:00 a.m. in the auditorium of The Medical Society of Virginia to consider its first malpractice case. The panel reconvened at 2:00 p.m. at the Richmond Academy of Medicine to hear another case. The panel of lawyers and physicians were found unanimously against the alleged injured patient in one case and unanimously in favor of the alleged injured patient in the other.

Your committee has received a number of inquiries on behalf of alleged injured patients but has heard only the two cases referred to above, due to the refusal of insurance counsel for the alleged erring physicians to permit their clients to agree to submit cases to the panel. If the panel is to be used as a working tool, it requires that all parties agree to submit cases to it. As a corollary, the malpractice insurance carrier for the physician must agree to allow the physician to submit his case, for if the physician submitted his case without such permission, he may be denied coverage under his policy upon the grounds of lack of cooperation. As long as insurance counsel refuse to allow their physician clients to submit their cases, the medical malpractice panel plan will fail to fulfill its function. The committee is hopeful that the House of Delegates will pass an appropriate resolution requesting or directing medical malpractice insurance carriers to permit their insured physicians to submit cases to the plan and not to discourage or advise them against so doing.

Edward E. Haddock, M.D., *Chairman*
John O. Boyd, Jr., M.D.
William Dolan, M.D.
John Q. Hatten, M.D.
Geoffrey T. Mann, M.D.
T. Addison Morgan, M.D.
Charles W. Whitmore, M.D.

Advisory to Department of Welfare

The Advisory Committee to the Department of Welfare and Institutions met in Richmond, December 10, 1961, with four committee members, and Dr. Walter Rein, Mr. William Miller, Attorney, and Mr. Robert I. Howard, executive secretary of The Medical Society of Virginia in attendance. Messrs. Painter, Krueger, Bruner, and Dr. Wright, as well as Miss Armstrong, Miss Reames and Mrs. Harrison from the Welfare Department also attended.

The Kerr-Mills and Social Security approach to medical care of the aged was discussed at length with unanimous agreement in support of the Kerr-Mills Bill. It was agreed that The Medical Society of Virginia should actively work for passage of State legislation to implement participation by Virginia in the provisions of the Kerr-Mills Bill.

The matter of drug charges and payments to recipients of Public Welfare was discussed, with Drs. Wright and Bates reporting on their conference with representatives of the Pharmaceutical Association. A specific plan was

presented. After discussion it was decided to direct Drs. Wright and Bates to continue their negotiations with the Pharmaceutical Association to secure certain modifications in the proposed plan.

It was brought to the attention of the representatives of the Department of Welfare that, probably inadvertently, impression was often given to recipients of free hospital care that the costs of physicians services were paid out of Welfare funds, when in fact by official action of both The Medical Society of Virginia and local medical societies, physicians attending patients hospitalized as indigents freely donated their services. The Welfare officials agreed to attempt to correct this falsely created impression.

Discussion of the direct vendor payment to dispensors of drugs and physicians services or payment by the recipients of the services and drugs, resulted in a recommendation by the committee approving the vendor method of payment.

The growing problem of non-medical control of medical programs was discussed and it was recommended that local departments of Public Welfare associate with them a physician in a consultative capacity, or use local public health directors in that capacity, and that local medical societies create advisory committees to assist the local departments of Welfare in the administration of medical functions.

John T. T. Hundley, M.D., *Chairman*
Robley Bates, M.D.
H. W. Felton, M.D.
Charles H. Lupton, M.D.
Horace E. Kerr, M.D.
G. B. Setzler, M.D.

House

Your committee is pleased to report that at long last the leaks in the roof of the Headquarters Building have been located and remedied and our staff now have firm cover over their heads. The problem had been with us ever since completion of the building and baffled architects and roofers alike. A new roofer with a fresh outlook turned the trick.

Our financial report covers the first nine months of our fiscal year.

Building and Maintenance Expenses from October 1, 1961 to June 30, 1962 have been as follows:

Janitor & Janitor Supplies	$1,227.67
Electricity & Water	855.80
Insurance	457.53
Furnace & Air conditioner maintenance	163.42
Yard Care	496.98
Painting (Interior)	934.00
Taxes	1,671.88
Fuel Oil	489.04
Window Washing	31.00
	$6,327.32
Applied against this is amount contributed by the Virginia Academy of General Practice and the Virginia Hospital Association	1,275.00
	$5,052.32

The amount in our budget to cover the above is $6,000 but as most of our major expenses have been met we are most hopeful of completing the year in the black.

Harry J. Warthen, M.D., *Chairman*
Virgil May, M.D.
Fletcher J. Wright, Jr., M.D.

Principles and Policies

Need for action by the committee has developed only as this report is being prepared, and, consequently, no formal meetings have been held to date. Whether a meeting will be called prior to the Annual Meeting in Washington depends upon how much information can be obtained in the next few weeks.

Your Chairman has been asked what stand The Medical Society of Virginia should take with respect to non-participation in case the King-Anderson bill should be passed. Although no committee action has been possible thus far, it seems most important that each physician again review a recent AMA recommendation that particular consideration be given the following sections of the Principles of Medical Ethics:

"Section 1.—The principal objective of the medical profession is to render service to humanity with full respect for the dignity of man. Physicians should merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion.

"Section 5.—A physician may choose whom he will serve. In an emergency, however, he should render service to the best of his ability. Having undertaken the care of a patient, he may not neglect him; and unless he has been discharged he may discontinue his services only after giving adequate notice. He should not solicit patients.

"Section 6.—A physician should not dispose of his services under terms or conditions which tend to interfere with or impair the free and complete exercise of his medical judgment and skill or tend to cause a deterioration of the quality of medical care."

Detailed information concerning the matter of "fragmentation" of community health services has only recently been obtained by the Chairman. Apparently, there is a feeling in some states that health matters are the responsibility of non-medical agencies in which medicine is not represented. An effort is now being made to determine just how much of a problem along this line we actually have in Virginia. Fragmentation has been defined as: "(1) the delegation of responsibility for each specific health program to one of a variety of state agencies, thus, distributing the responsibilities for the various types of health services among any number of state agencies; and (2) the splintering of the administration of a specific health program area among more than one state agency, thus, encouraging redundancy or duplication in rendering health services by a variety of agencies."

A quick review of the various health agencies in Virginia would not indicate that there has been any great fragmentation of health agencies within the State. It is recommended, however, that further study be given the matter prior to the next meeting of the General Assembly, with the thought that if there are any instances where health matters are under the control of agencies without

adequate medical representation, or not under the control of the State Department of Health, this matter should then be brought to the attention of the Governor and members of the Legislature.

Since medicine is under such concentrated fire these days—particularly on its stand concerning health care for the aged—it might be well to call attention to a movement now under way within the health insurance industry to establish a more standard health care program for our senior citizens. This program would, by "spreading the risk" among the various carriers, be much better able to provide adequate coverage to *all* those over 65 years of age. Something similar is already in effect in Connecticut. It is hoped that the Society's Subcommittee on Voluntary Pre-Paid Health Insurance will investigate the possibilities of such a program and lend such assistance as might be necessary.

Your committee recommends that each member review the Statement of Principles and Policies adopted by the Society in 1958 and published in the October, 1958, issue of the Virginia Medical Monthly.

BENJAMIN W. RAWLES, JR., M.D., *Chairman*

DELEGATES TO THE 1962 MEETING
(SECOND INTERSTATE SCIENTIFIC ASSEMBLY)
THE MEDICAL SOCIETY OF VIRGINIA

Where no name is listed it is indicative that no delegate or alternate was reported in time for publication.

Delegates	*Alternates*
Accomack	
Dr. Walter A. Eskridge	Dr. Donald Fletcher
Albemarle	
Dr. Guy Hollifield	Dr. W. Copley McLean
Dr. McLemore Birdsong	Dr. E. Meredith Alrich
Dr. Thomas S. Edwards	Dr. H. L. Archer
Dr. Cary N. Moon, Jr.	
Alexandria	
Dr. James M. Moss	Dr. H. H. Ferrell, Jr.
Dr. John C. Watson	Dr. C. Albert Hudson
Dr. F. Preston Titus	Dr. W. J. Weaver, Jr.
Alleghany-Bath	
Amherst-Nelson	
Arlington	
Dr. K. Charles Latven	Dr. Hermann F. Diamant
Dr. Thomas A. McGavin	Dr. Robert L. Norment
Dr. John T. Hazel	Dr. Lloyd B. Burk, Jr.
Augusta	
Dr. Boyd H. Payne	Dr. J. Treacy O'Hanlan
Dr. Charles L. Savage	Dr. Theron R. Rolston, Jr.
Dr. James A. Higgs, Jr.	Dr. William G. Painter
Bedford	
Dr. W. V. Rucker	
Botetourt	
Buchanan-Dickenson	
Dr. J. C. Moore	Dr. Ralph W. Hess
Dr. Joshua P. Sutherland	Dr. T. D. McDonald
Charlotte	
Culpeper	
Dr. J. Bernard Jones	
Danville-Pittsylvania	
Dr. S. C. Hall, Jr.	
Dr. F. H. McGovern	
Fairfax	
Dr. Carl P. Parker, Jr.	
Dr. John E. Prominski	
Dr. C. Barrie Cook	
Fauquier	
Floyd	
Dr. F. Clyde Bedsaul	Dr. Robert C. Patten
Fourth District	
Dr. Charles W. Scott	Dr. Epes Harris
Dr. Ray A. Moore, Jr.	Dr. A. J. Munoz
Fredericksburg	
Dr. John Lewis Smoot	
Dr. Thomas B. Payne	
Dr. Joseph C. MacKnight	
Dr. D. W. Scott, Jr.	
Dr. William D. Liddle, Jr.	
Halifax	
Dr. W. C. Hagood	
Hampton	
Dr. Frank Kearney	Dr. O. W. Ward, Jr.
Hanover	
Dr. Claude K. Kelly	Dr. Mann T. Lowry
James River	
Dr. J. H. Yeatman	Dr. A. C. Whitley
Dr. W. A. Pennington	Dr. Garland Dyches
Dr. Russell N. Snead	Dr. W. S. Lloyd
Lee	
Dr. Thomas S. Ely	Dr. G. B. Setzler
Loudoun	

Delegates	*Alternates*
Louisa	
Lynchburg Academy	
Dr. Charles W. Whitmore	Dr. F. N. Buck
Dr. Joseph L. Platt	Dr. L. F. Somers
Dr. Ernest G. Scott	Dr. J. W. Davis, Jr.
Mid-Tidewater	
Dr. A. W. Lewis, Jr.	Dr. M. H. Harris
Dr. J. C. Rahman	Dr. C. A. Broaddus
Dr. H. L. Shinn	Dr. R. D. Bowles
Dr. A. L. Van Name, Jr.	Dr. W. J. Gatzek
Dr. J. W. Chinn	Dr. D. E. Andrews
Dr. J. R. Parker	Dr. R. S. Brown
Newport News	
Dr. F. Ashton Carmines	Dr. I. F. Nesbitt
Dr. William A. Read	Dr. J. Q. Hatten
Dr. Edward V. Siegel	Dr. E. B. Mewborne
Dr. Samuel H. Mirmelstein	Dr. T. C. Lawford
Norfolk	
Dr. M. Kirwan King	Dr. Jerome Adamson
Dr. Claiborne Fitchett	Dr. Mallory S. Andrews
Dr. William Taliaferro	Dr. John A. Byrd
Dr. R. Bryan Grinnan, Jr.	Dr. Robert B. Gahagan
Dr. Harry B. Taylor, Jr.	Dr. Alter Laibstain
Dr. James M. Wolcott, Jr.	Dr. Gervas S. Taylor, Jr.
Dr. George Rector	Dr. Patrick C. Devine
Northampton	
Dr. William F. Bernart	Dr. John R. Mapp
Northern Neck	
Dr. Paul C. Pearson	Dr. Harold E. Sisson
Dr. A. B. Gravatt, Jr.	Dr. Melvin B. Lamberth
Dr. Lloyd T. Griffith	Dr. C. Harper Ward
Dr. C. Leonard Booker	Dr. Milton M. Neale, Jr.
Northern Virginia	
Dr. Harold W. Miller	
Dr. James R. Holsinger	
Dr. D. H. McNeill, Jr.	
Dr. H. P. Maccubbin	
Dr. J. P. Snead, Jr.	
Dr. Frank E. Tappan	
Orange	
Dr. J. Garnett Bruce, Jr.	
Patrick-Henry	
Dr. S. W. Adams, Jr.	Dr. L. A. Faudree
Dr. William D. Lewis	Dr. H. C. Foster
Dr. Edwin T. McNamee	Dr. I. V. Magal
Portsmouth	
Dr. William S. Terry	Dr. G. L. Moore
Dr. Neil Callahan	Dr. J. R. St. George
Princess Anne	
Dr. J. A. White	Dr. Albert Dickson
Dr. James P. Charlton	

Delegates	*Alternates*
Prince William	
Richmond Academy	
Dr. E. L. Kendig, Jr.	Dr. E. P. Buxton, Jr.
Dr. John P. Lynch	Dr. Charles McKeown
Dr. John M. Meredith	Dr. G. B. Carter
Dr. Charles M. Nelson	Dr. B. N. Carter, II
Dr. Richard A. Michaux	Dr. Merritt Foster
Dr. James B. Stone	Dr. Sami Said
Dr. Robert E. Mitchell, Jr.	Dr. Duval Watts
Dr. Robert L. Bailey, Jr.	
Dr. J. Shelton Horsley, III	Dr. Edwin Wysor
Dr. M. M. Pinckney	Dr. Thomas Overton
Dr. Kinloch Nelson	Dr. F. E. Oglesby
Dr. Benjamin Rawles, Jr.	Dr. Virgil May
Dr. Robert Irby	Dr. Elam C. Toone, Jr.
Dr. Jack M. Harrison	Dr. Henry Royster
Roanoke Academy	
Dr. J. Lawson Cabaniss	Dr. R. F. Bondurant
Dr. George S. Hurt	Dr. Douglass D. Fear
Dr. William H. Kaufman	Dr. Hugh J. Hagan, Jr.
Dr. Philip C. Trout	Dr. Ira Hurt
Dr. Harry B. Stone, Jr.	Dr. R. S. Hutcheson, Jr.
Dr. P. A. Wallenborn, Jr.	Dr. William P. Trice
Rockbridge	
Dr. Dirk Enthoven	Dr. Kurt J. Fox
Rockingham	
Dr. George M. Nipe	
Dr. John T. Glick, Jr.	
Russell	
Scott	
Southwestern Virginia	
Dr. W. W. Walton	Dr. C. W. Hickam
Dr. C. E. Starke	Dr. W. R. Chitwood
Dr. George B. Kegley	Dr. C. D. Moore, Jr.
Dr. Joseph H. Early, Jr.	Dr. J. G. Cox
Dr. Charles O. Finne	Dr. J. A. Soyars
Dr. S. A. Tuck	Dr. Harold Turner
Dr. J. S. Shaffer	Dr. S. H. Catron, Jr.
Dr. C. W. Richardson	Dr. J. Marinous
Dr. David S. Phlegar	Dr. Garrett Dalton
Dr. J. L. Stringfellow	Dr. William Gammon
Tazewell	
Dr. James M. Peery	Dr. J. A. Robinson
Tri-County	
Dr. George Carroll	Dr. Philip Thomas
Dr. T. A. Morgan	Dr. John Murray
Dr. Ivan Steele	Dr. Hugh Warren
Dr. W. H. Chapman, Jr.	Dr. E. C. Joyner
Williamsburg-James City	
Dr. Hugh G. Stokes	
Wise	
Dr. J. Marion Straughan	Dr. Pierce Nelson

Woman's Auxiliary....

President—Mrs. William F. Grigg, Jr., Richmond
President-elect—Mrs. A. B. Gravatt, Jr., Kilmarnock
First Vice-President—Mrs. Theodore McCord, Fairfax
Second Vice-President—Mrs. Byron T. Eberly, Portsmouth
Third Vice-President—Mrs. Custis L. Coleman, Richmond
Recording Secretary—Mrs. J. T. McFadden, Norfolk
Treasurer—Mrs. Walter A. Eskridge, Parksley
Parliamentarian—Mrs. Maynard R. Emlaw, Richmond
Historian—Mrs. Byron T. Eberly, Portsmouth
Chaplain—Mrs. Hawes Campbell, Richmond

PROGRAM

of the

FORTIETH ANNUAL CONVENTION

Washington, D. C. October 14-16, 1962

Headquarters—Hotel Sheraton-Park

A cordial invitation is extended to all members of the Woman's Auxiliary to The Medical Society of Virginia, their guests and the wives of physicians attending the convention to participate in all social functions and to attend the general meeting of the Auxiliary.

Information and tickets for luncheon and the guided tour will be available at the registration desk.

Registration Hours

Sunday, October 14—3:00 p.m. to 6:00 p.m.
Monday, October 15—8:30 a.m. to 12:30 p.m. and 2:00 p.m. to 4:00 p.m.

Sunday, October 14

4:00 P.M.—Pre-convention Board Meeting, Madison Room Hotel Sheraton-Park.
All State Officers, Directors, Committee Chairmen, County Presidents and President-Elects are expected to attend.
Mrs. William F. Grigg, Jr., presiding

Monday, October 15

9:30 A.M.—Formal Opening of the Fortieth Annual Convention of the Woman's Auxiliary to The Medical Society of Virginia, Assembly Room, Hotel Sheraton-Park.
Mrs. William F. Grigg, Jr., President, presiding.

Invocation—Mrs. Hawes Campbell, Convention Chaplain

Pledge of Loyalty:
I pledge my loyalty and devotion to the Woman's Auxiliary to the American Medical Association. I will support its activities, protect its reputation, and ever sustain its high ideals.

Address of Welcome—Mrs. T. B. McCord, First Vice-President, Fairfax

Response—Mrs. Kalford W. Howard, Portsmouth

Convention Announcements—Mrs. Peter Soyster, Fairfax

Roll Call of Auxiliaries—Mrs. J. T. McFadden, Recording Secretary

Minutes of the Thirty-ninth Annual Convention—Mrs. McFadden

Minutes of the Post-Convention Board Meeting—Mrs. McFadden.

Report of the Treasurer—Mrs. Walter A. Eskridge

Presentation of Honored Guests
Mrs. William G. Thuss, President of the Woman's Auxiliary to the American Medical Association
Mrs. Roy A. Douglass, President of the Woman's Auxiliary to the Southern Medical Association

Presentation of the President of The Medical Society of Virginia
Dr. Russell V. Buxton

Presentation of Dr. Hugh H. Hussey, President AMA-ERF, Dean of the Georgetown University School of Medicine, Washington, D. C.

Recognition of State Officers and Chairmen

Report of Credentials Committee—Mrs. Peter Soyster, Fairfax

Courtesy Resolutions—Mrs. Hermann Diamant, Arlington

Report of Delegates to the Woman's Auxiliary to the American Medical Association, Mrs. James M. Moss, Alexandria

Report on Workshop—Mrs. A. B. Gravatt, Jr., President-Elect

Unfinished Business

New Business

Recommendations from the Board

Report of the Nominating Committee—Mrs. F. Clyde Bedsaul, Chairman

Election of Officers

Guest Speakers—
Mrs. William G. Thuss, President of the Woman's Auxiliary to the American Medical Association
Mrs. Roy A. Douglass, President of the Woman's Auxiliary to the Southern Medical Association

In Memoriam—Mrs. Maynard Emlaw, Richmond

Adjournment

1:00 P.M.—Inaugural Luncheon, Cotillion Room, Hotel Sheraton-Park.
Mrs. William F. Grigg, Jr., President, presiding

Invocation—Mrs. Hawes Campbell

Luncheon

Presentation of Honored Guests

Introduction of Luncheon Chairman

Installation of Officers—Mrs. William G. Thuss

Presentation of President's Pin—Mrs. William F. Grigg, Jr.

Presentation of Past President's Pin—Mrs. F. Clyde Bedsaul

Inaugural remarks—Mrs. A. B. Gravatt, Jr.

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Tuesday, October 16

7:30 A.M.—Past-Presidents Breakfast—Adams Room, Mrs. F. Clyde Bedsaul, Chairman

8:30 A.M.—Three hour bus tour of area including a visit to the White House

11:00 A.M.—Post-Convention Board Meeting and Work Shop, Hamilton Room.
All new State Officers, Directors, Committee Chairmen, County Auxiliary Presidents and President-Elects are expected to attend.
Mrs. A. B. Gravatt, Jr., President, presiding

Alexandria, Arlington County, and Fairfax County Medical Auxiliaries are the hostesses for this convention.

General Chairmen: Mrs. James M. Moss, Alexandria
Mrs. Hermann Diamant, Arlington
Mrs. Peter Soyster, Fairfax

Presidents: Mrs. Milton Stein, Alexandria
Mrs. Michael Puzak, Arlington
Mrs. William J. Reardon, Fairfax

'Every' Family, Mr. President?

The arrogance for which John F. Kennedy is so widely and so unpleasantly known was fully evident late yesterday in his statement on the "medicare" bill. The Senate's defeat of this pernicious bill, he allowed, is "a most serious defeat for every American family."

We would thank this one-tenth-of-one-percent President to exclude at least one family from his sweeping claim: Our family. And we suspect there are many thousands of other families in this Republic who do not regard yesterday's vote in the Senate as a "defeat" at all; they regard it, on the contrary, as a walloping victory. They are overjoyed that the bill was killed, and they ask nothing more than that the bill be killed when the President trots it out again next year. Where does he get this "every family" nonsense?

The bill was a bad bill in 18 different ways. Its single worst feature was the feature our young Eminence loved the most: He insisted that these hospitalization benefits be tied to Social Security. As a consequence, several million persons over 65, fully able to meet their own medical expenses, would have received a splendid windfall. Every working man and woman in the country, not to mention their overtaxed employers, would have been belted with another increase in taxes. And the clammy hand of "national medicine" would have begun to caress the doctor's throat. Once this scheme is hooked to Social Security, the bright blue sky is the limit—and Mr. Kennedy knows it. No election year would pass without some sweetener in the benefits, or some reduction in the age limits of the beneficiaries.

What now? We pray fervently that the American Medical Association and the private insurance companies, chief opponents of the bill, will redouble their efforts to cope with the medical needs of the aged. It is estimated that half the persons in this country, over 65, now carry their own hospitalization insurance. If this factor can be raised significantly, next year's margin of defeat for the Kennedy plan will be much wider. And in our famliy, we would count this a benefit indeed.

Reprinted from the Richmond News Leader, July 18th.

Editorial . . . .

Our Thanks to the Senate

THE HUMILIATING DEFEAT of President Kennedy's Medical Care Plan by the Senate on July 17th was the cause for universal rejoicing by the physicians of this country and by those citizens generally, who did not wish to see socialized medicine come to America. We, as usual, have every reason to be proud of and thankful for our Virginia senators. We must not forget, however, that this victory represents one battle in a war that will probably last as long as this brash young man continues in the White House. We are engaged in a fight to the finish and we cannot afford to relax our efforts for a moment.

Kennedy made this abundantly clear in his statement shortly after the Senate voted, when he said: "I think the American people are going to make a decision in November as to whether they want this bill, and similar bills, to be passed, or whether they want it to be defeated . . . with your support in November this will pass in 1963."

In his anger over his defeat he issued a statement which was one-third true and two-thirds false. This probably is par for the course. He said, "The election in 1960 was very close, it has meant that nearly every vote in the House and Senate is close. Some we win by one or two votes; other we lose." The voting for congressman and senators in 1960 was far from close—the Democrats carried both houses by large majorities. The only vote that was close was his own vote, when he received 49.7 percent of the ballots cast for president and many questioned whether he actually won the election.

It is up to us to do all we can to prevent anyone who supported the motion to table Kennedy's bill on July 17 from being penalized, because of his vote. This, of course, has no bearing in Virginia where neither of our senators is up for re-election and neither would be in danger if he were but it has a world of bearing in many elections in nearby states. We physicians must extend these candidates for re-election all the aid, comfort and ammunition possible. We must redouble our efforts to inform the electorate of the fallacies of Kennedy's plan for medical care in order that we may offset the many advantages he, as President, will enjoy when he takes his message to the people. There is every reason to expect the American Medical Association to pursue this course on a nation-wide basis but each of us will have an opportunity to spread the gospel through contact with citizens from other parts of the country who will be voting for senators who may be on Kennedy's purge list.

The question comes closer home to us in Virginia in the elections for the House of Representatives this November. Most of the congressional candidates in Virginia have expressed publicly their opposition to the King-Anderson bill. One or two are still on the doubtful list and one of our representatives would probably vote for Kennedy's Medical Care Plan if the opportunity arose. The physicians in each district concerned should make a final attempt to emphasize and clarify medicine's view-

point and ask the candidate to state his position on Kennedy's Social Security approach to this problem.

We have won the first round and have every reason to be elated but we cannot rest on our laurels for round two is coming up on the sixth of November.

The Doctors Amiss of Luray

THE UNTIMELY DEATH of Dr. Frederick Thomas Amiss of Luray, on July 18, (see page 556) terminated an outstanding medical career and brought to a close the family of physicians by that name who made medical history a century ago. His death, in fact, fell just a few days short of the centennial of the most publicized successful operation carried out by Southern surgeons during the War Between the States.

The participants were his grandfather, Thomas B. Amiss and his great uncle, William H. Amiss, both of whom were assigned to Georgia regiments that arrived in Virginia without medical officers. The patient was thirty-two year old Major Richard Snowden Andrews of Baltimore, who commanded Andrews Battery, later known as the First Maryland Artillery. The date was August 9, 1862. The battle of Cedar Mountain was opened by an artillery duel and this engagement is still recalled for the number of bizarre shell wounds received by Confederates. Early in the engagement Major Andrews was struck by a shell which exploded just in front of his abdomen. It is said that with rare presence of mind he supported his abdominal wall so that he did not eviscerate as he fell from his horse.

His subsequent operation was carried out without benefit of anesthesia or antisepsis. Chloroform, the standard Southern anesthetic, was not available and Lister did not describe the carbolic acid method until the summer of 1865—too late to be of aid to the hard pressed Confederate surgeons.

The extent of Major Andrew's injuries and the type of operation carried out vary considerably in the various accounts now available. One version is to the effect that a considerable amount of damaged small intestine was resected with an end-to-end anastomosis. Another has it that the left chest cavity was also injured. In view of these discrepancies, the report of the operating surgeon, Dr. Thomas B. Amiss would appear most authoritative and this will be given as he related it to the Association of Medical Officers of the Army and Navy of the Confederacy. The writer is indebted to Dr. Amos R. Koontz of Baltimore, for the following text. Dr. Koontz has the double distinction of having Dr. Amiss officiate at his birth and also having been named for him, although a slight liberty was taken with the spelling.

Dr. Amiss' picturesque and robust description follows:

"After the battle of Cedar Mountain in August 1862, when our forces were falling back on Orange Court House, my regiment, the 31st Georgia, formed the rear guard. We had not gone far before a courier came

to the rear and asked for a surgeon, saying that 'Dr. McGuire wanted him to look after a wounded man near the roadside.'

"With my brother, Dr. William H. Amiss, surgeon of the 60th Georgia Regt., we arrived at the roadside and found the wounded man a few feet inside of a field. I dismounted and going up to him saw his bowels were out and called back to my brother, 'The only thing to do to this man is to dig a hole and put him in it.' The wounded man aroused and replied 'That is what Dr. McGuire told me, but if you damned doctors would do something for me, I would get well.'

"I said, 'My friend, do you know that your bowels are all out and covered by chickweed, clay dust and sand?' He again replied 'I had a hound dog run a mile with his guts out and caught a fox and I know I am as good as a dog and can stand as much.'. . .

"I said to my brother, 'This man is full of all sorts of grit (meaning sand from the road and physical stamina as well) and we will do what we can for him'. I ordered my litter bearers to carry him to a nearby farm house, Mr. James Garnett's, where we placed him on the dining room table and proceeded to clean his wound, which was caused by a shell from the enemy's gun, which tore away the abdominal wall, crushed the bones of the right hip and narrowly missed the intestine.

"My brother, Dr. William H. Amiss, washed out the abdominal cavity removing therefrom a handful of sand and vegetable matter. The point of the hip bone was broken and hanging down. This was cut off. The work was all carefully done with salt solution. The sewing up of the wound, about seven inches long, I did with ordinary boss cotton and a calico needle."

Major Andrews recovered after a surprisingly short convalescence, received a well deserved promotion and was wounded again at Winchester on June 14, 1863. He then was sent to Europe to obtain ordnance for the Confederacy and became a Southern military observer during the short war between Prussia and Denmark. A German surgeon insisted that he show the scar on his abdomen to General Von Moltke who stated it was the worst wound he had ever seen.

A description of Andrew's injuries and treatment found its way into a British medical text book where it aroused much interest. London surgical opinion attributed his recovery to the foreign material in his peritoneal cavity and this, in turn, led to the practice of placing dust in abdominal wounds received by French soldiers in the Franco-Prussian War a few years later.

Little did these Luray physicians realize, while operating upon Major Andrews, that in a sense, fame had been thrust upon them and they had made medical history that dusty day in Culpeper County. Fame, on the other hand, did not knock as loudly on the door of Dr. Tom Amiss, who occupied the office in which his grandfather practiced after his return from Appomattox, but he too served his time and people well and medicine in Virginia is the poorer by reason of his death.

Harry J. Warthen, Jr., M.D.

News....

New Members.

The following doctors were admitted into membership in The Medical Society of Virginia during the month of July:

Ihian Ermutlu, M.D., Williamsburg
James Selden Harris, M.D., Blackstone
Jacob Lee Mathews, Jr., M.D., Haymarket
Ralph Andreas Natvig, M.D., Richmond
Milton Mercer Neale, Jr., M.D., Heathsville
John Morton Quarles, M.D., Poquoson
Richard Lee Relyea, M.D., Danville
Clement Jay Robbins, III, M.D., Fredericksburg
Mary Elizabeth Zumbrunnen Skopora, M.D., Richard
Nari Probhdas Vaswani, M.D., Petersburg

Dr. Kinloch Nelson

Has been named associate dean of the Medical College of Virginia. His responsibilities will include direction of a post-graduate training program for working physicians and acting as College liaison with practicing physicians. Dr. Nelson has been professor of medicine and director of the continuing education program for the past thirteen years and will continue as director.

Dr. Sidney Kaye,

State Toxicologist for the past fifteen years, will move to Puerto Rico in the fall. He has been appointed director of the laboratories (poison centers) of the Puerto Rican Institute of Legal Medicine. Part of his duties will be to work with the Puerto Rican police. He has also been appointed professor of toxicology and associate professor of pharmacology at the University of Puerto Rico.

Dr. Kaye was the State's first toxicologist. He established a laboratory in Richmond and set up poison information centers in major cities across the State. He is the author of "Handbook of Emergency Toxicology" which has been printed in both English and Spanish.

Dr. R. W. Bradley,

Powhatan, has been appointed to the Powhatan County School Board for a term of four years. He has filled the unexpired term of Dr. William S. Lloyd since July.

Attend International Cancer Congress.

Dr. William R. Nelson and Dr. Susan J. Mellette, both of the Medical College of Virginia, attended the Eighth International Cancer Congress in Moscow July 22nd to 28th. Dr. Nelson was on the program and showed a surgical motion picture made at the College, illustrating operations on throat cancer.

Drs. Nelson and Mellette are co-directors of the tumor clinic of the college.

Dr. Egdahl Receives Award.

Dr. Richard H. Egdahl, professor of surgery at the Medical College of Virginia, has received the Endocrine Society's 1962 Ciba Award. The Award, which carries an honorarium of $2500, recognizes the "meritorious accomplishments" of an investigator in clinical or preclinical endocrinology who has not reached his 36th birthday. Dr. Egdahl was cited for the contributions his investigations have made to our understanding of the role of the central nervous system in the regulation of adrenocorticotropic hormone secretion.

Announce Association.

Drs. Hunter B. Frischkorn, Jr., William C. Barr, and Irvin W. Cavedo, Jr., Richmond, announce the association of Dr. James W. Proffitt for the practice of radiology.

Postgraduate Course.

The American College of Physicians will present a postgraduate course at the Medical College of Virginia, October 1-5, on Basic Mechanisms in Internal Medicine. This will deal with new and significant advances in internal medicine with emphasis on the patho-physiologic concept as related to clinical manifestations and the therapy of disease. It will be directed by Dr. W. T. Thompson, Jr., with Drs. Charles M. Caravati and Kinloch Nelson as co-directors.

First Annual Post-Graduate Day,

Sponsored by the Patrick-Henry Medical Society, Virginia Academy of General Practice and Eli Lilly and Company, will be held at the Lynwood Club (DuPont), Martinsville, September 26th at 2 P.M. The program will be: The Management of Chronic Relapsing Pancreatitis—Dr. W. Dean Warren, Associate Professor of Surgery, University of Virginia; Selection of Hypertensive Patients for Surgery—Dr. Julian R. Beckwith, Associate Professor of Medicine, University of Virginia; and New and Old Tools in Diagnosis of Congenital Heart Disease—Dr. Carolyn M. McCue, Department of Pediatrics, Medical College of Virginia.

Dr. B. T. Painter

Has resumed the practice of medicine in Williamsburg after two years absence from the city. He recently was connected with the Veterans Administration Hospital at Kecoughtan.

Dr. William S. Jordan,

Professor and chairman of the department of preventive medicine of the University of Virginia, has been appointed to the Board of Virus Reference Reagents, established by the National Institute of Allergy and Infectious Diseases of the United States Public Health Department.

Dr. Ray H. Smith,

Ashland, has been elected president of the Board of Trustees of the Hanover Academy.

Position Available

As Director of Medical Education, Louise Obici Memorial Hospital, Suffolk. For full particulars, write Administrator, Louise Obici Memorial Hospital, Suffolk, Virginia. (*Adv.*)

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Location Wanted.

Orthopedist, board certified, retiring military service after more than 20 years. Desire to establish himself in New York, Virginia or Texas. Desire association with other orthopedic surgeon, group practice, or other practice opportunity. Contact Wilhelm A. Zuelzer, Lt. Col. M. C., Chief, Orthopedic Service, DeWitt Army Hospital, Fort Belvoir, Virginia. (*Adv.*)

Obituaries . . . .

Dr. Ben James Montgomery,

South Hill, died July 26th, at the age of seventy-eight. He was a graduate of the Medical College of Virginia in 1905 and practiced medicine for fifty-two years at Alberta and Baskerville before his retirement in 1957. Following his retirement, Dr. Montgomery moved to South Hill. In 1955 the Old Belt Medical Society paid special tribute to him and his brother, the late Dr. C. V. Montgomery, who each had practiced fifty years. Dr. Montgomery had been a member of The Medical Society of Virginia for fifty-seven years.

His wife, four daughters and a son survive him.

Dr. William Hartley Craig,

Richmond, died July 31st, at the age of seventy-nine. He was a graduate of the Medical College of Virginia in 1906. Dr. Craig was a member of the Fifty Year Club of The Medical Society of Virginia, having been a member of the Society since 1907. He had been a general practitioner in South Richmond for more than forty-five years.

A daughter survives him.

Dr. Kenneth Bradford,

Prominent physician of Staunton, died July 8th after a long illness. He was eighty years of age and received his medical degree from the University of Virginia in 1905. Dr. Bradford had practiced in Staunton for more than fifty years and was the city's first health officer. He was physician at Mary Baldwin College and for thirty-seven years was physician for the Virginia School for the Deaf and Blind. Dr. Bradford had been a member of The Medical Society of Virginia for fifty-three years.

His wife, a son and a daughter survive him.

Dr. Frederick Thomas Amiss,

Well-known Luray physician, died of a heart attack on July 17th. He was sixty-two years of age and received his medical education from the University of Virginia, graduating in 1925. Dr. Amiss had practiced in Staunton since 1930 and occupied the same medical office once used by his grandfather. He was medical examiner for Page County and a former president of the staff of Page Memorial Hospital. Dr. Amiss held many posts of responsibility in civic and professional lines. He was a charter member of the Luray Lions Club. Dr. Amiss was the last of a distinguished line of physicians of Page County. (See Editorial Comment) He had been a member of The Medical Society of Virginia since 1928.

His wife and two daughters survive him.

Dr. Williams

The following resolution was adopted unanimously by the Committee on Medical Service:

WHEREAS: Dr. James P. Williams of Richlands, Virginia, was a loyal member of The Medical Society of Virginia for twenty-nine years; and

WHEREAS: Dr. Jim was a faithful member of the Medical Service Committee for twelve years, during which period he was Chairman of the Subcommittee on Hospital-Physician Relationships and under his able guidance a report was prepared and adopted by the House of Delegates on this subject; and

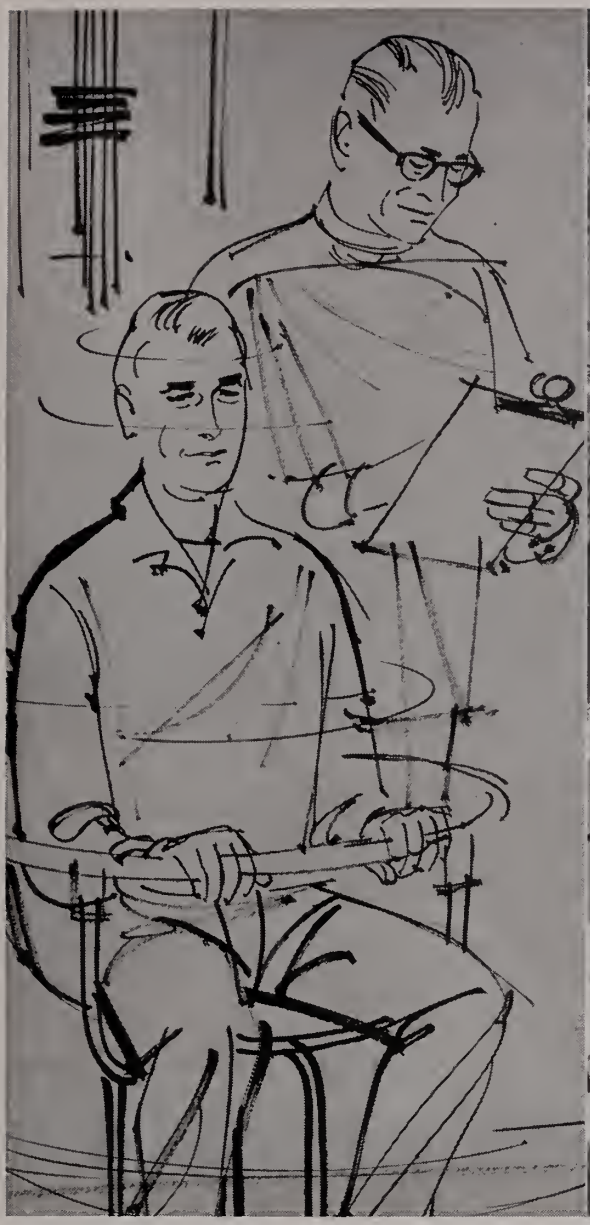
WHEREAS: Although traveling was quite difficult, Dr. Williams always attended Medical Service Committee meetings, inclement weather and physical disability notwithstanding; and

WHEREAS: He contributed greatly to the community life of Richlands, Tazewell County and to a great measure Buchanan County; and

WHEREAS: He served as Chairman of the Liaison Committee between The Medical Society of Virginia and United Mine Workers Fund; and

WHEREAS: His fellow members of the Medical Service Committee share with his many friends, patients and family his passing;

THEREFORE, BE IT RESOLVED: That this resolution be made an indelible part of the 1962 report of the Medical Service Committee and may God rest his soul.





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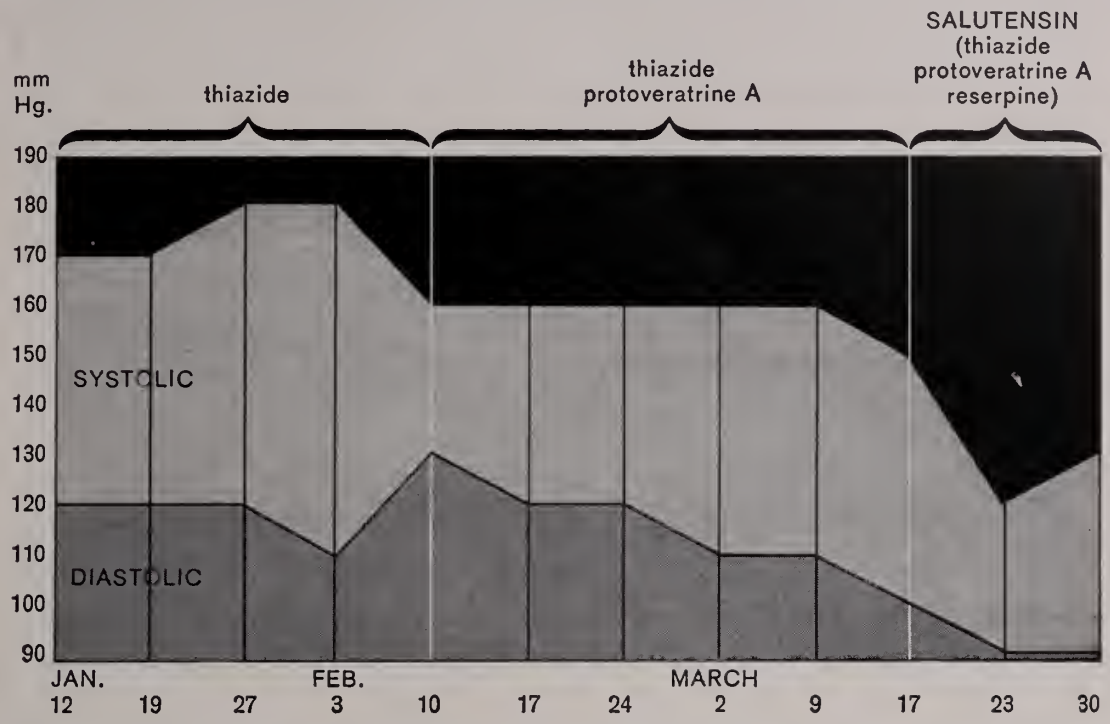
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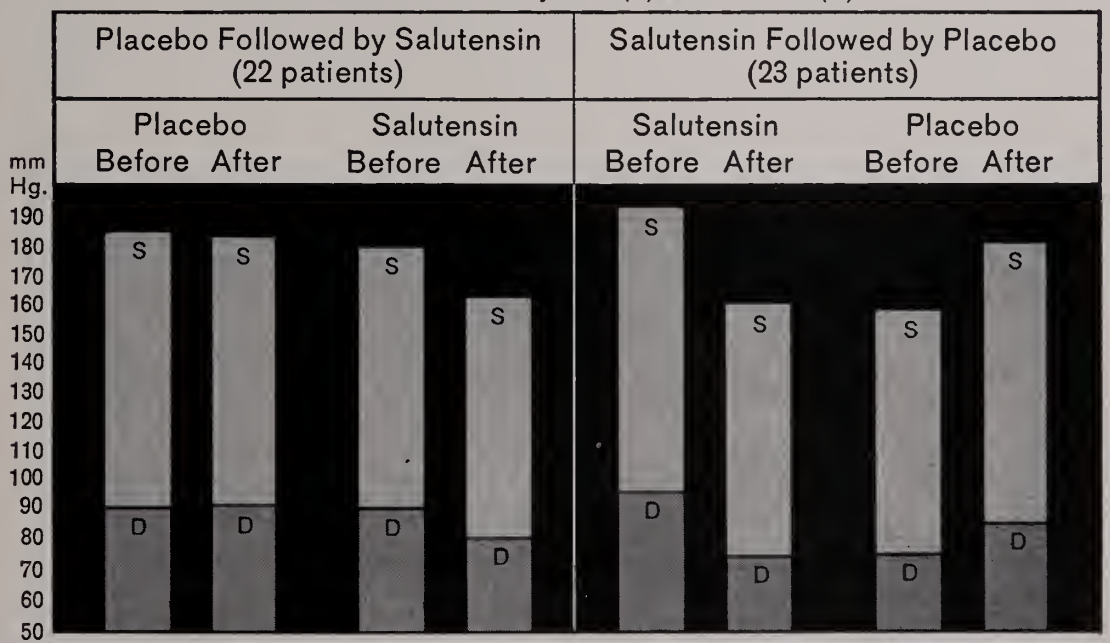
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(Adapted from Spiotta, E. J.: Report to Department of Clinical Investigation, Bristol Laboratories)



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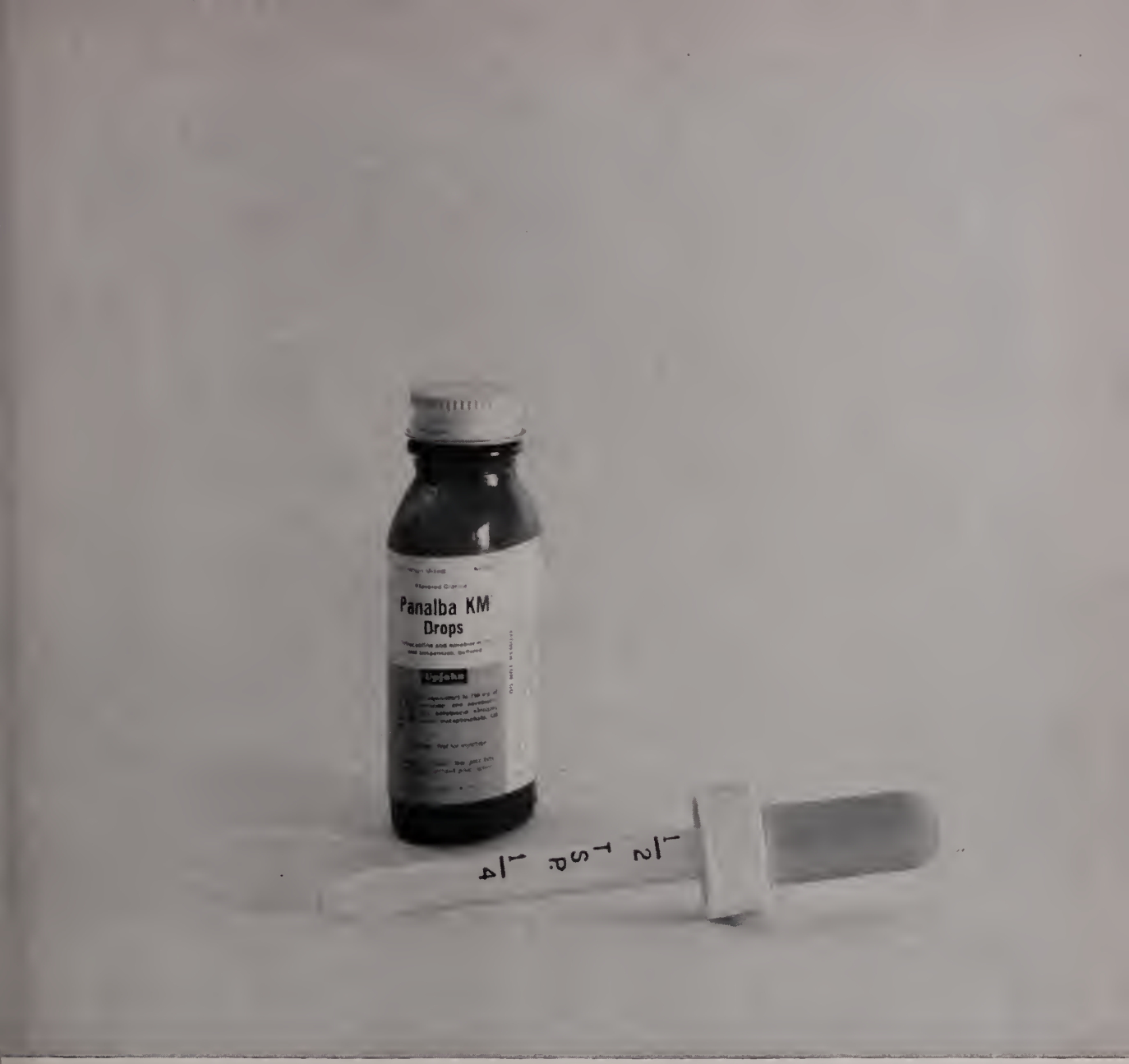
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1 Ford, R. A., and Blanchard, K. Journal Lancet 78:185, 1958

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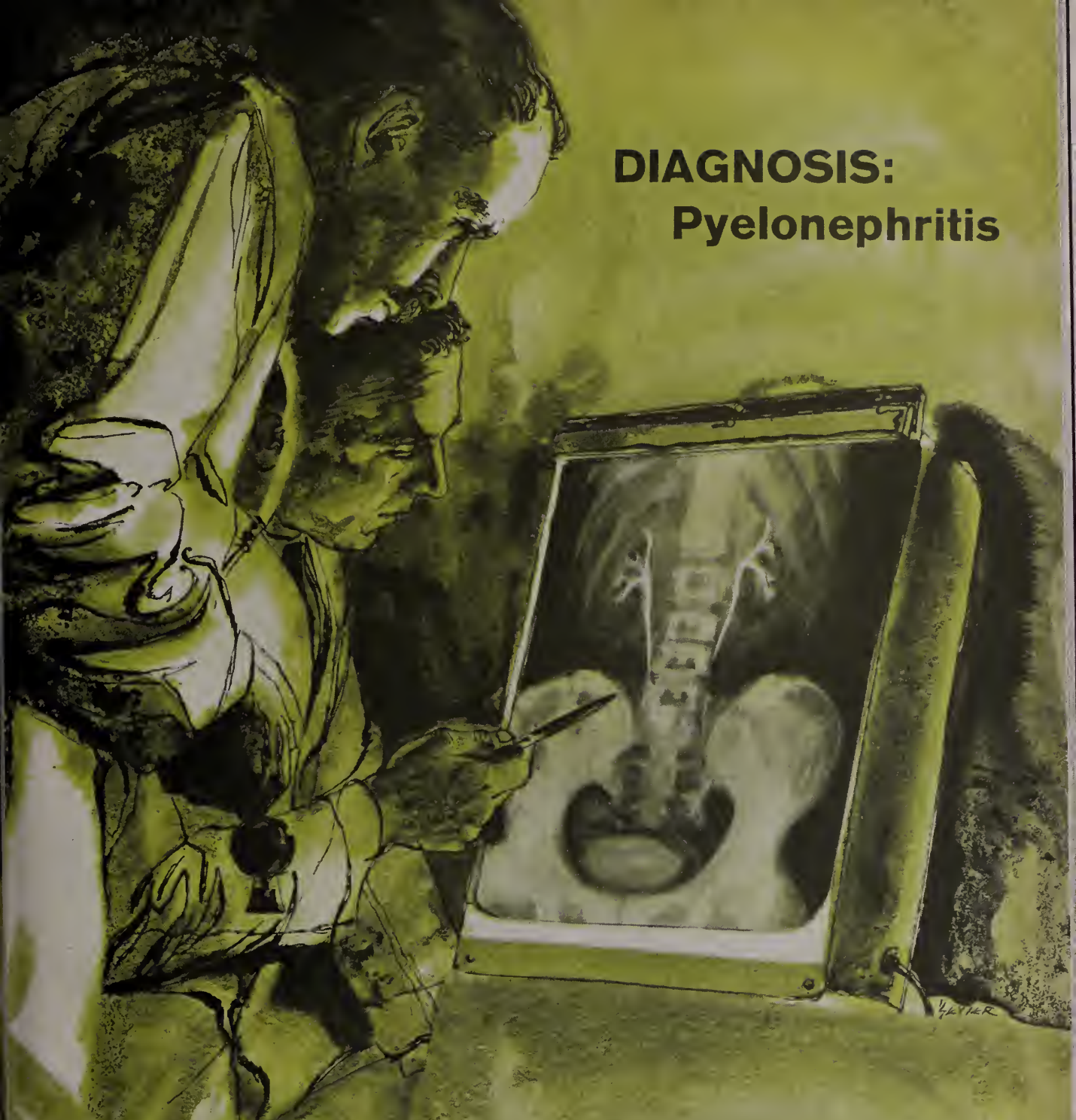
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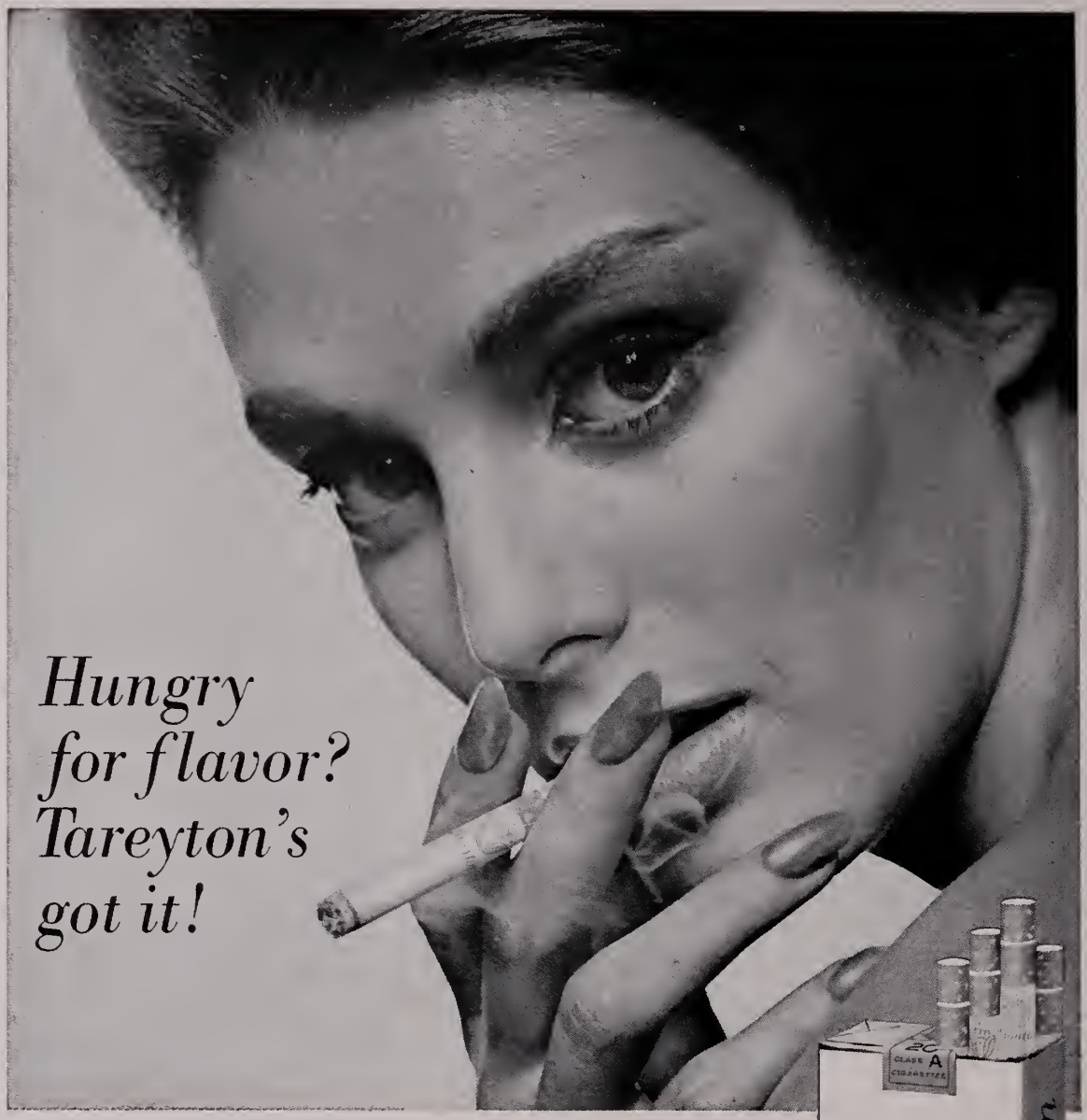
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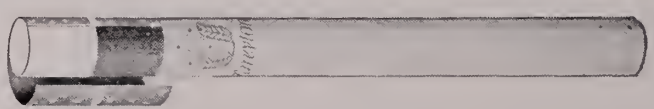
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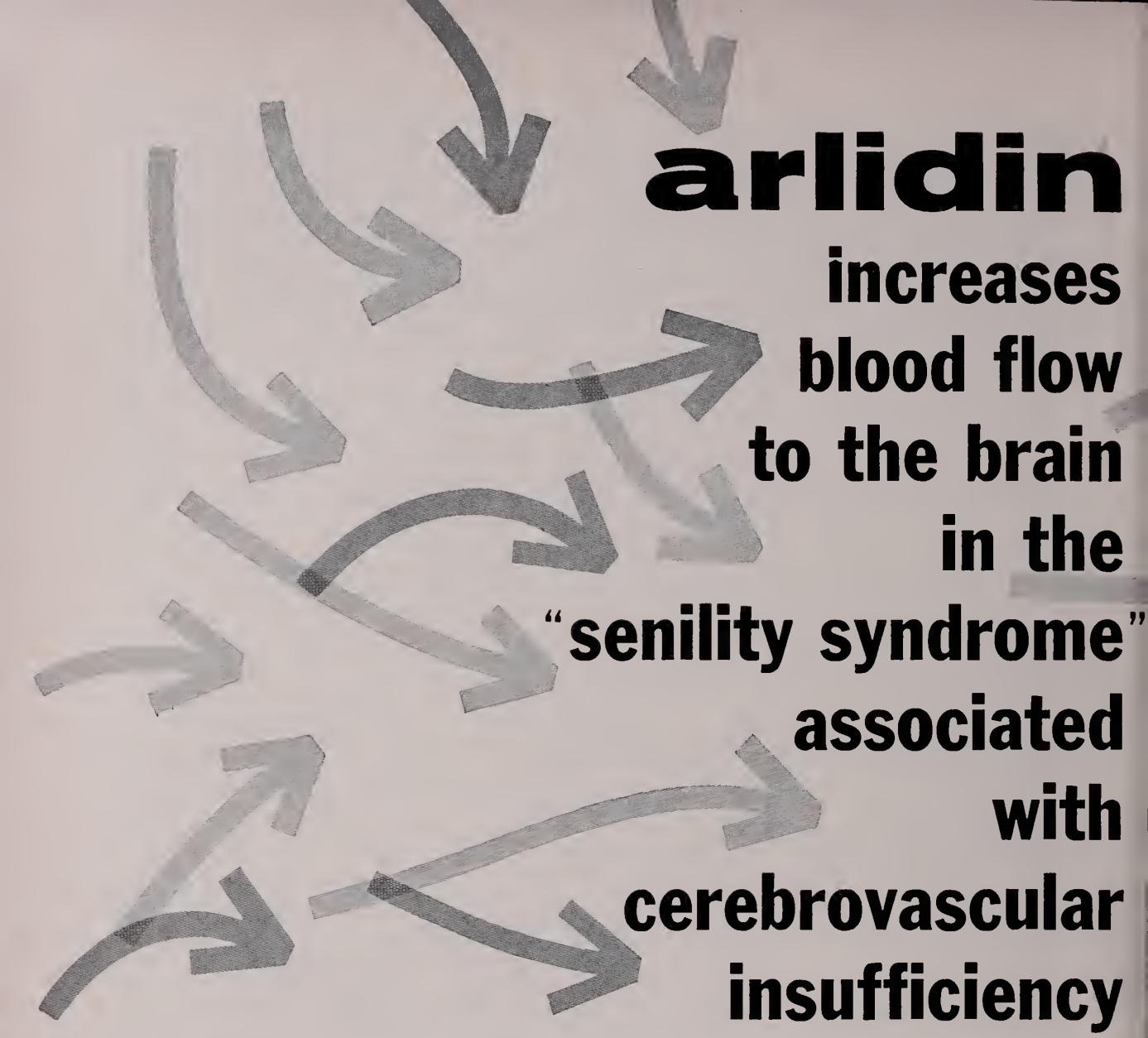
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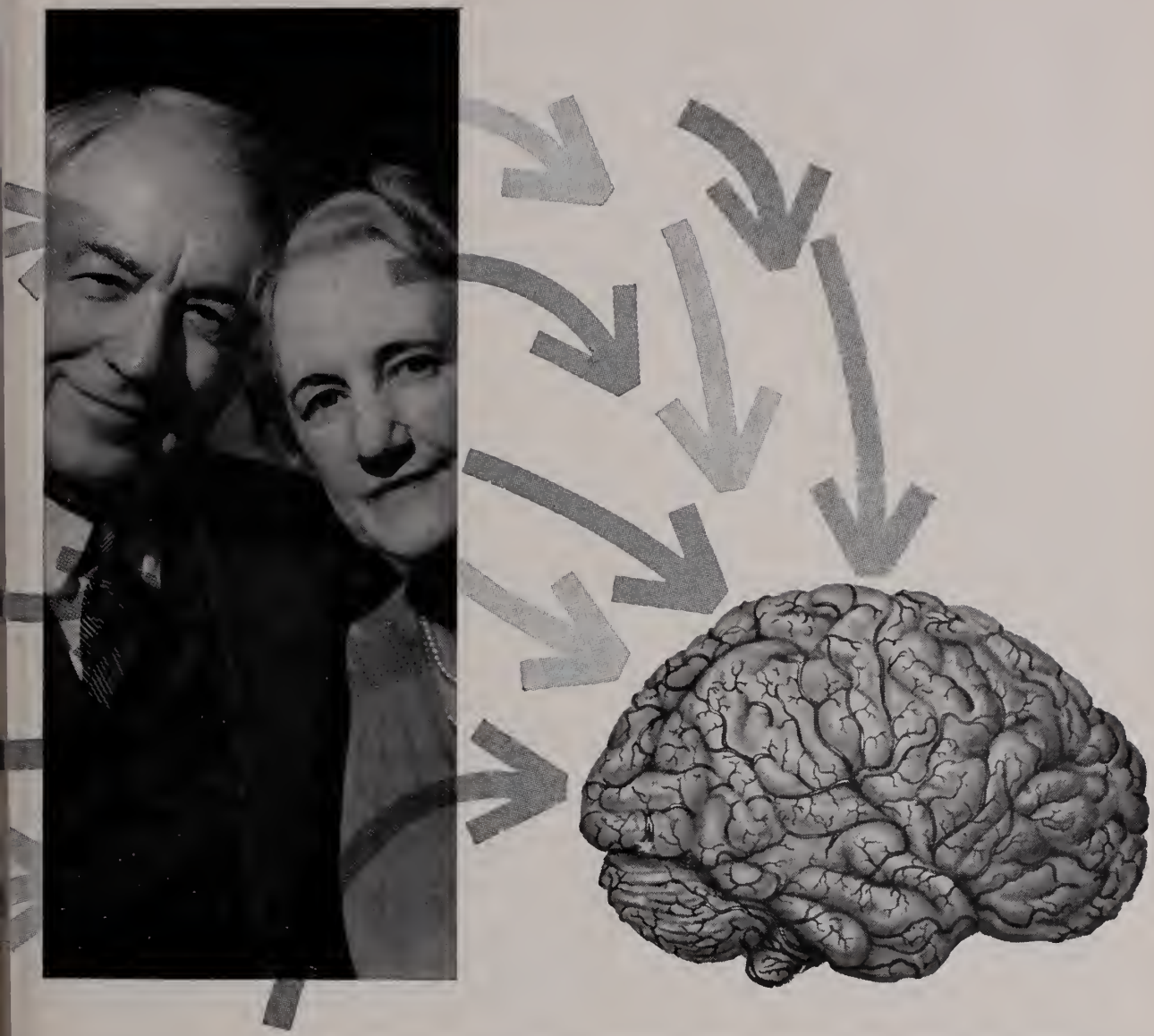
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references: 1. Madow, L.: Penn. M. J. 62:861, June 1959. 2. Stieglitz, E. J.: Geriatric Medicine, ed. 2, Philadelphia, Saunders, 1949 p. 274. 3. Winsor, T., et al.: Amer. J. Med. Sciences 239:594, May 1960. 4. Eisenberg, S.: ibid, July 1960.

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1. Kolodny, A.L.: Dis. Nerv. System *22*:151 (Mar.) 1961.

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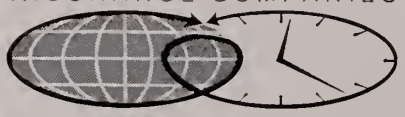
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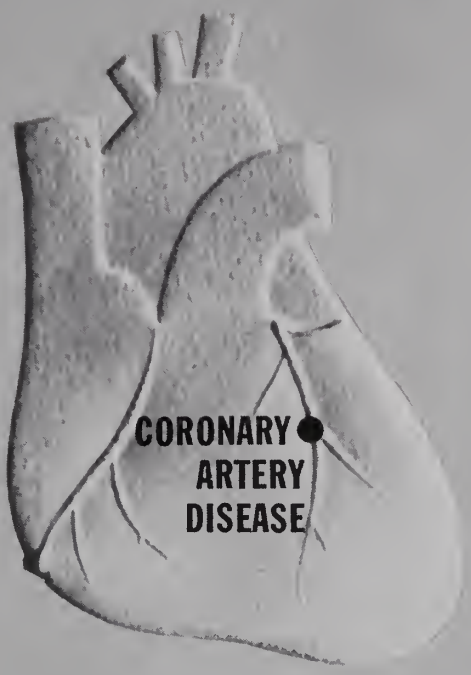
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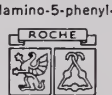
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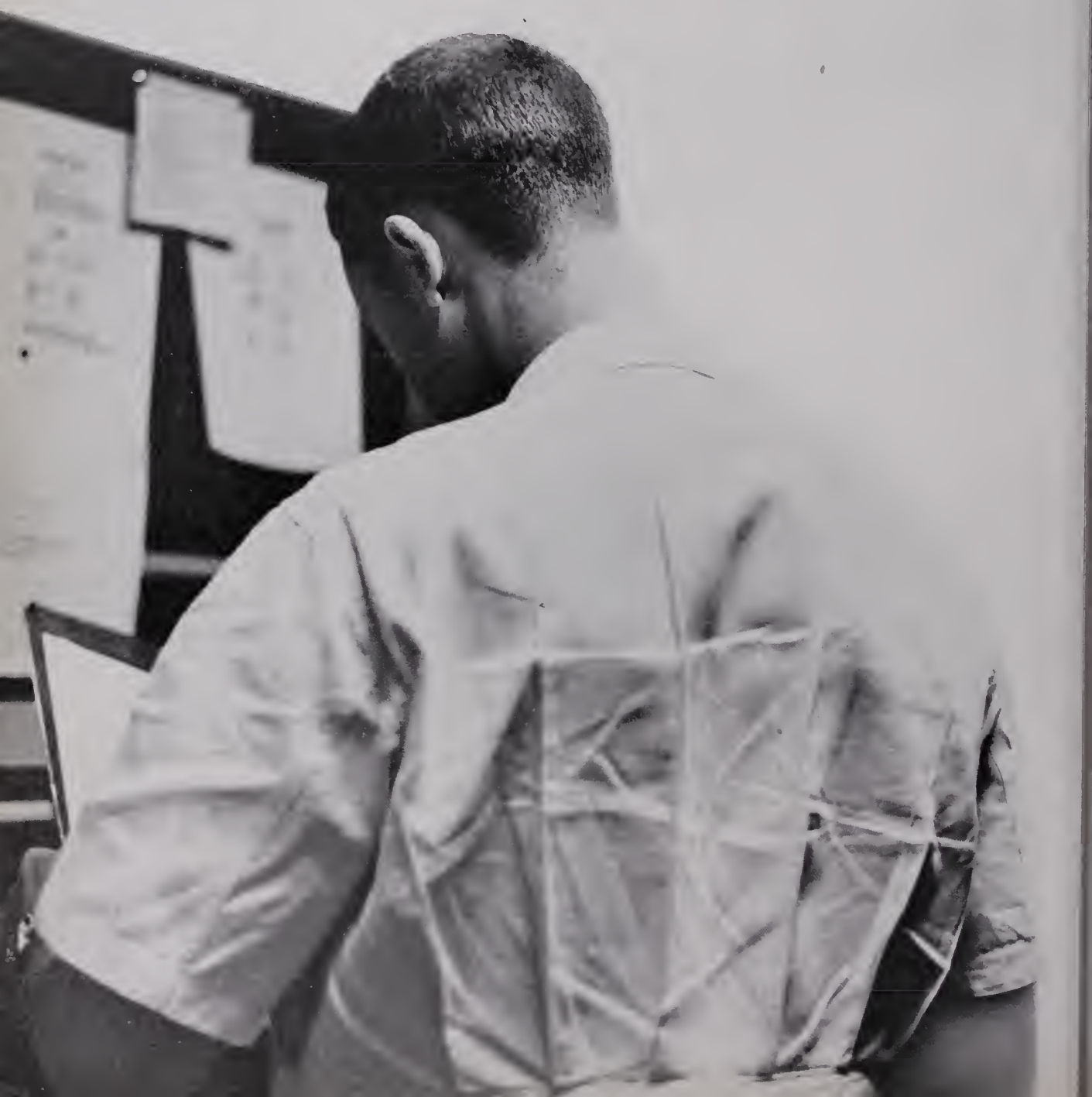
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OCTOBER, 1962

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References: (1) Katz, Y. J., & Bourdo, S. R.: *Pediat. Clin. North America* **8**:1259, 1961. (2) Malone, F. J., Jr.: *Mil. Med.* **125**:836, 1960. (3) Ullman, A.: *Delaware M. J.* **32**:97, 1960. (4) Petersdorf, R. G.; Hook, E. W.; Curtin, J. A., & Grossberg, S. E.: *Bull. Johns Hopkins Hosp.* **108**:48, 1961. (5) Whitaker, L.: *Canad. M. A. J.* **84**:1022, 1961. (6) Martin, W. J.; Nichols, D. R., & Cook, E. N.: *Proc. Staff Meet. Mayo Clin.* **34**:187, 1959.

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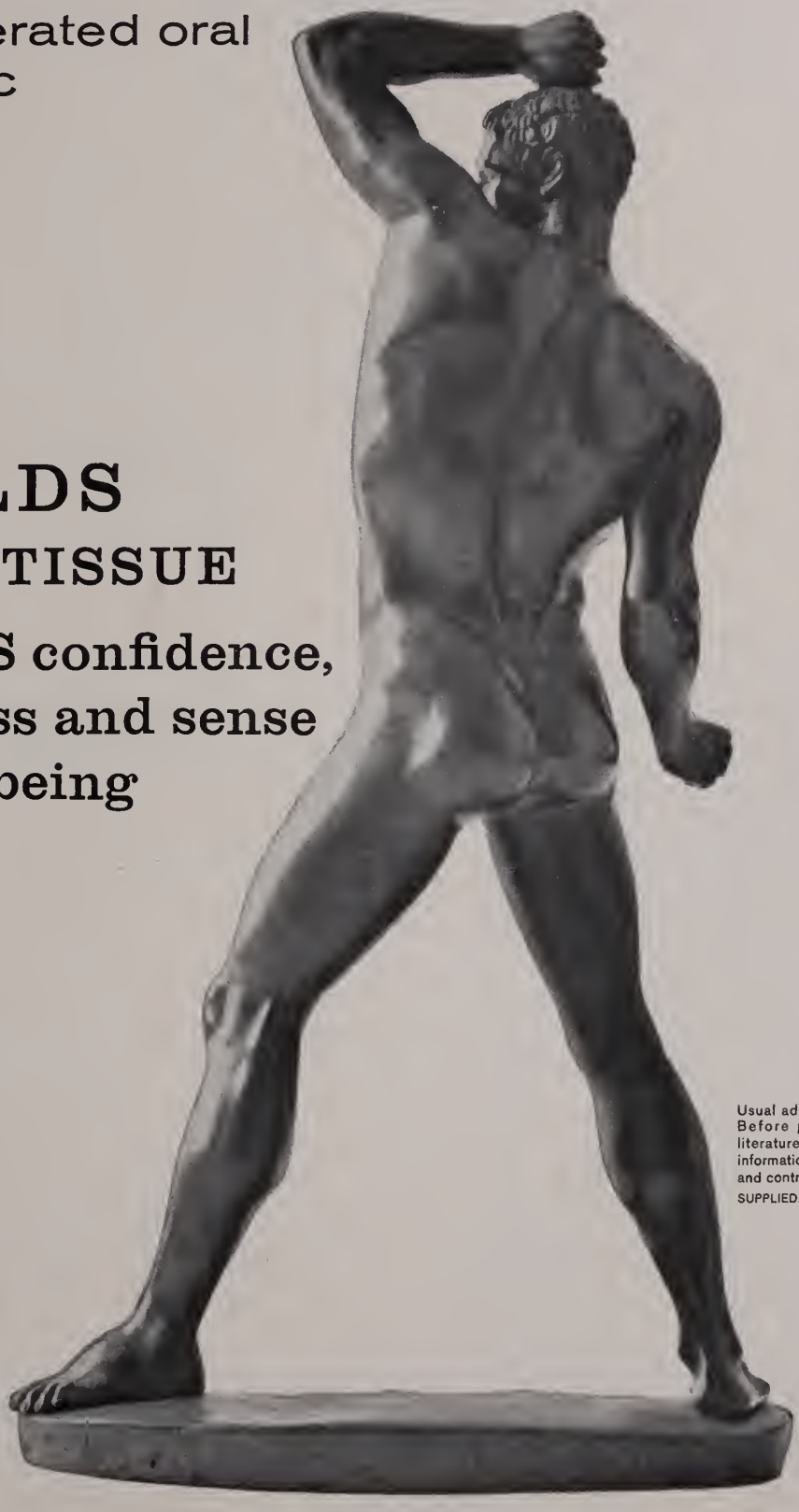
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2. Roberts, E.: Four Year Evaluation of an Antihypertensive Agent, J. Am. Med. Women's Assn. *13*:349 (1958).

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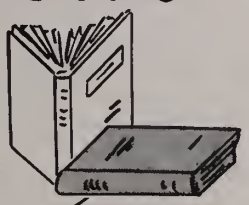
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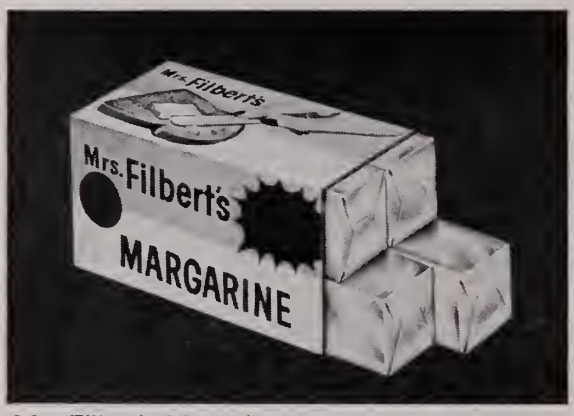
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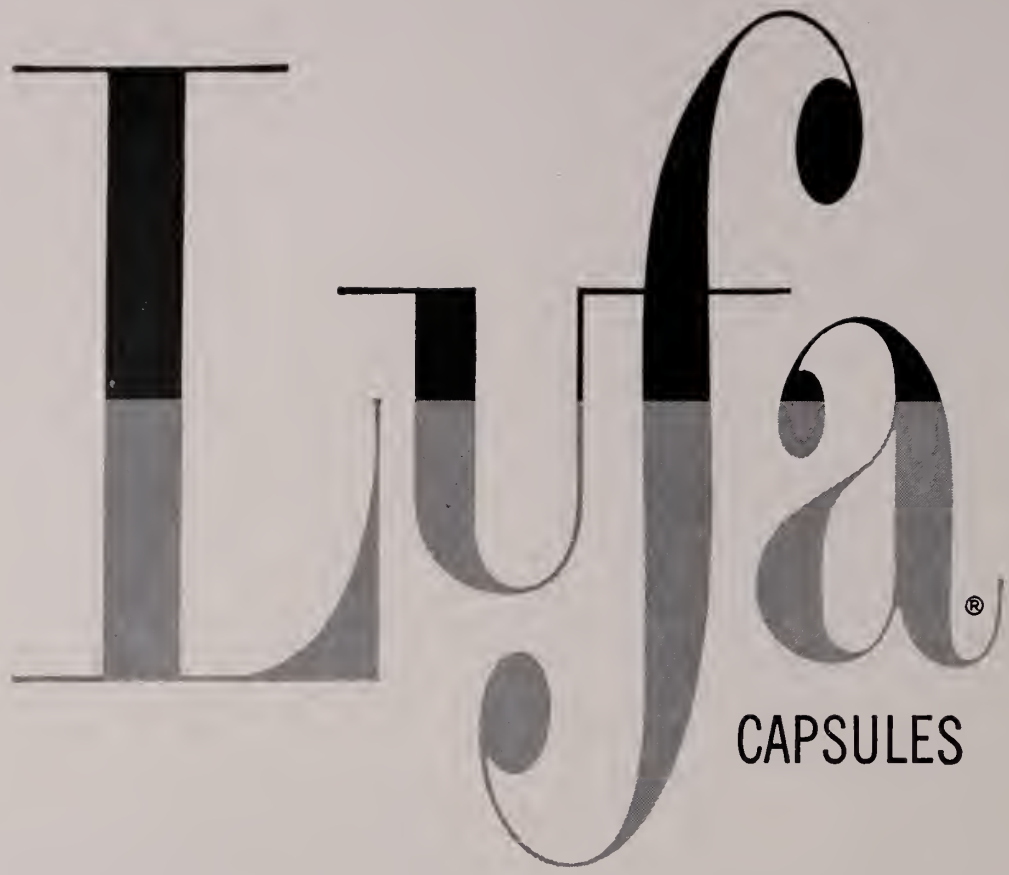
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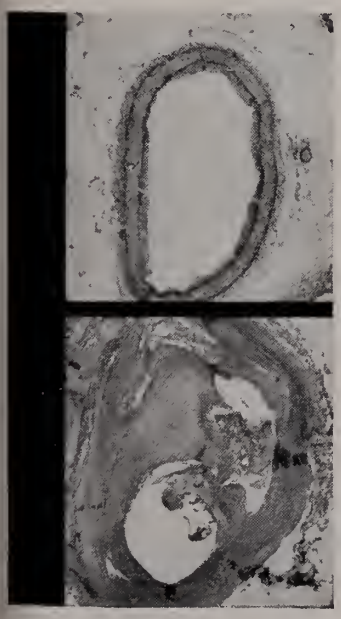
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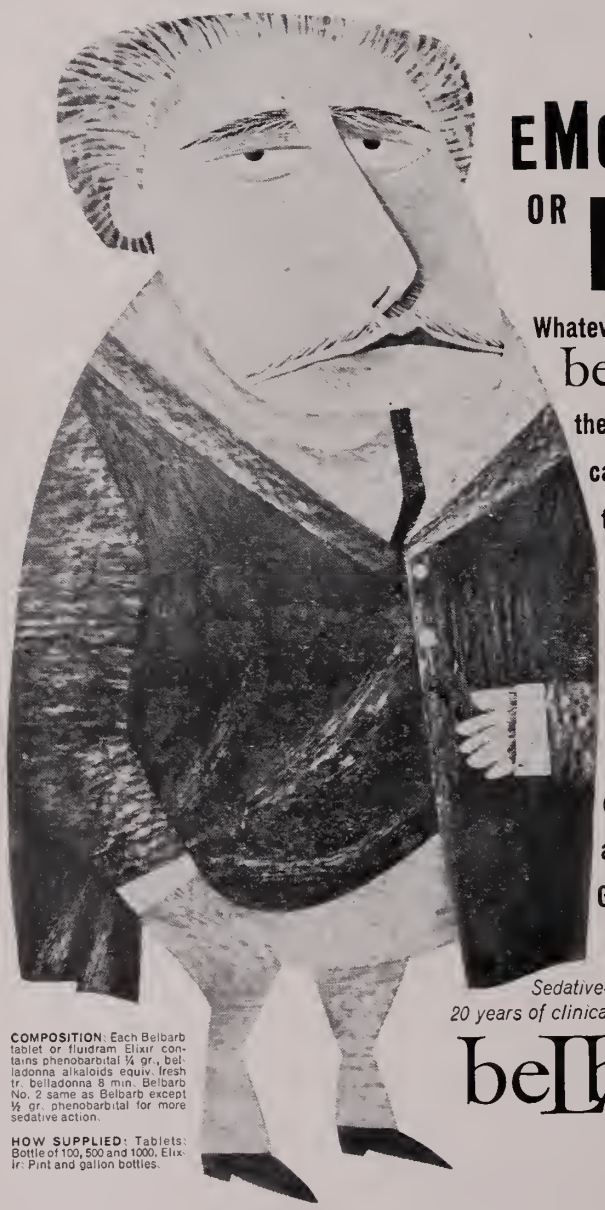
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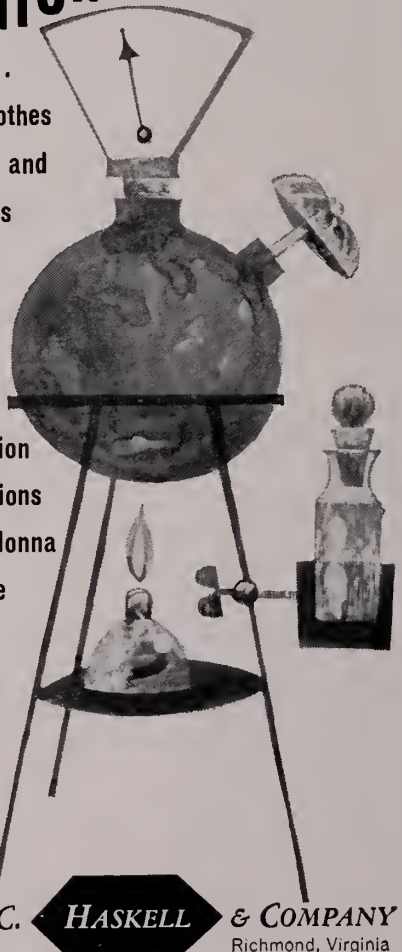
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Sedative—Antispasmodic
20 years of clinical satisfaction

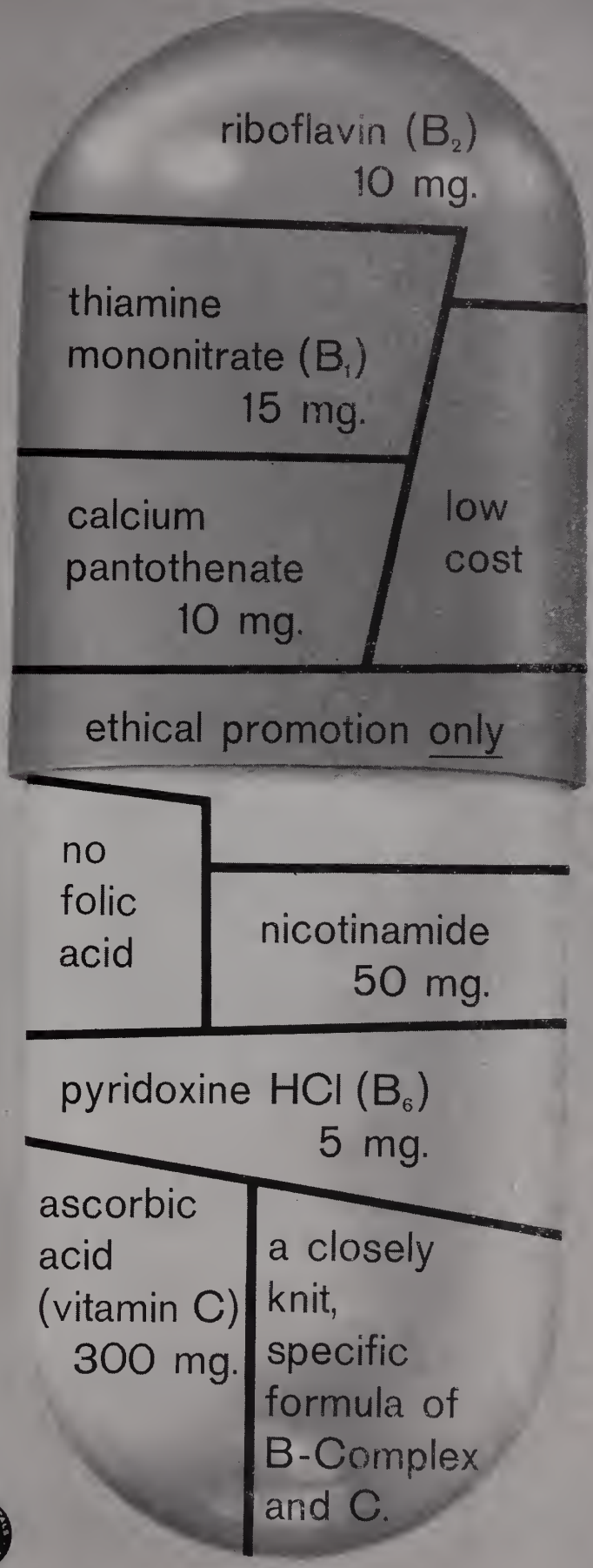
Belbarb®

COMPOSITION: Each Belbarb tablet or fluidram Elixir contains phenobarbital ¼ gr., belladonna alkaloids equiv. fresh tr. belladonna 8 min. Belbarb No. 2 same as Belbarb except ½ gr. phenobarbital for more sedative action.

HOW SUPPLIED: Tablets: Bottle of 100, 500 and 1000. Elixir: Pint and gallon bottles.

CHARLES C. HASKELL & COMPANY
Richmond, Virginia

this is what Allbee® with C is made of!



A. H. Robins Company, Inc.
Richmond 20, Virginia



FILMTAB®

SURBEX-T® provides therapeutic B-complex with 500 mg. of C



Patients receive replenishment in the easiest possible manner when the water soluble vitamins are depleted, or demands are increased.

Each Filmtab® Surbex-T represents:

Thiamine Mononitrate (B_1)	15 mg.
Riboflavin (B_2)	10 mg.
Nicotinamide	100 mg.
Pyridoxine Hydrochloride	5 mg.
Cobalamin (Vitamin B_{12})	4 mcg.
Calcium Pantothenate (as calcium pantothenate racemic)	20 mg.
Ascorbic Acid (C) (as sodium ascorbate)	500 mg.
Desiccated Liver, N.F.	75 mg.
Liver Fraction 2, N.F.	75 mg.

...and when needs are more moderate, SUR-BEX® with C, Abbott's improved B-complex formula with 250 mg. of C.

ABBOTT

210270

Filmtab—Film-sealed tablets, Abbott; U.S. Pat. No. 2,881,085



Appetizing diet food gives a patient an incentive.

How to help your patient stick to a low calorie diet

The secret ingredient in a successful diet is acceptance. A low calorie diet that lets the patient work out equivalent variations will win his approval. A too-rigid diet begs to be broken. Pictured are dishes any dieter would find appetizing: chicken flavored with garlic, fruit-garnished gelatin, grapefruit, raw carrot, celery, pepper and radish nibbles. Variations might be broiled fish, simple green salads. All can be interestingly seasoned, attractively served, to keep the patient's enthusiasm from flagging.



And a glass of beer can add zest to your patient's diet

104 calories, 8 oz. glass
(Average of American Beers)

United States Brewers Association, Inc.

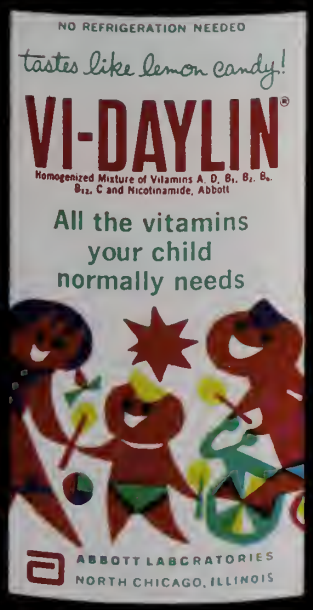
For reprints of this and 11 other diet menus, write us at 535 Fifth Avenue, N.Y. 17, N.Y.



How do the lemons get in the Vi-Daylin?

Perhaps this should be cleared up once and for all. There are *no* lemons in Vi-Daylin. If you've ever tasted Vi-Daylin, this might surprise you. Certainly, it would surprise the youngsters. To most of them, Vi-Daylin is liquid lemon candy, and that's *that*. But if it's deception, it's sensible deception. You never have to badger the kids into taking their vitamins. Nice to know, too, that this matchless matching of candy essence and color elegance can be found in all the forms and formulas of Vi-Daylin.

VI-DAYLIN—Vitamins A, D, B_1, B_2, B_6, B_{12}, C, and Nicotinamide, Abbott; VIDAYLIN-M—Homogenized Mixture of Vitamins with Minerals, Abbott; VI-DAYLIN-T—High Potency Multivitamins, Abbott.



Remember, there are *three* liquid formulas: Vi-Daylin, ViDaylin-M® (with minerals), and ViDaylin-T® (therapeutic). And if patients get a little owlly and won't touch *anything* in a spoon, you can give them the new Chewable (please see back of this page).

Each delicious, 5-cc. teaspoonful of Vi-Daylin supplies the following proportions of the Minimum Daily Requirements of:

		MDR (Children)	MDR (Infants)
Vitamin A	0.9 mg. (3000 units)	1	2
Vitamin D	10 mcg. (400 units)	1	1
Thiamine HCl (B_1)	1.5 mg.	2	6
Riboflavin (B_2)	1.2 mg.	1⅓	2
Ascorbic Acid (C)	50 mg.	2½	5
Nicotinamide	10 mg.	1⅓	2

Also supplies cyanocobalamin (B_{12}) 3 mcg. and pyridoxine Hydrochloride 1 mg.

209035A

Abbott Laboratories
North Chicago, Illinois

Gentlemen,

My family enjoys your chewable vitimans. It seems like we can not get enough of your vitimans. My sister enjoys your vitimans so much that she ask for more but cannot have no more. I like them because my mother does not have to worry about scolding us when taking it. Its good because you don't have no worries about something falling on the floor. If you kept on making these vitimans all the worlds children would be happy again. Now I would like to know whether I may have any information on the Middle West. You see my class and I are studying it. So if the information can be given I thank you very much.

"...all the worlds children would be happy again."

(an unsolicited testimonial from an actual letter)



ABBOTT

Analyze it . . .

Anyone who has ever taken a manual blood cell count knows how tedious it can be. And of course tedium breeds errors. Now, the Sanborn-Frommer Cell Counter makes blood analysis extremely simple — pour the sample, press the lever and within 25 seconds you can read the cell count directly on the panel meter.

Accurate, fast counting of red and white cells is made possible by the unique optical-electronic design of this new, economically-priced Sanborn instrument. Approximately 50 times the usual number of cells are sampled, greatly reducing the statistical error.

Hematology is a relatively new field for Sanborn instrumentation, but we are serving it with the same skills that are applied in the manufacture of electrocardiographs: the 2-speed Model 100 Viso Cardiette . . . its mobile counterpart the Model 100M Mobile Viso . . . and the compact, fully portable, 18-pound Model 300 Visette. These and all other Sanborn clinical, research and monitoring instruments are designed to dependably provide needed information in its most usable form.



on a Sanborn® cell counter

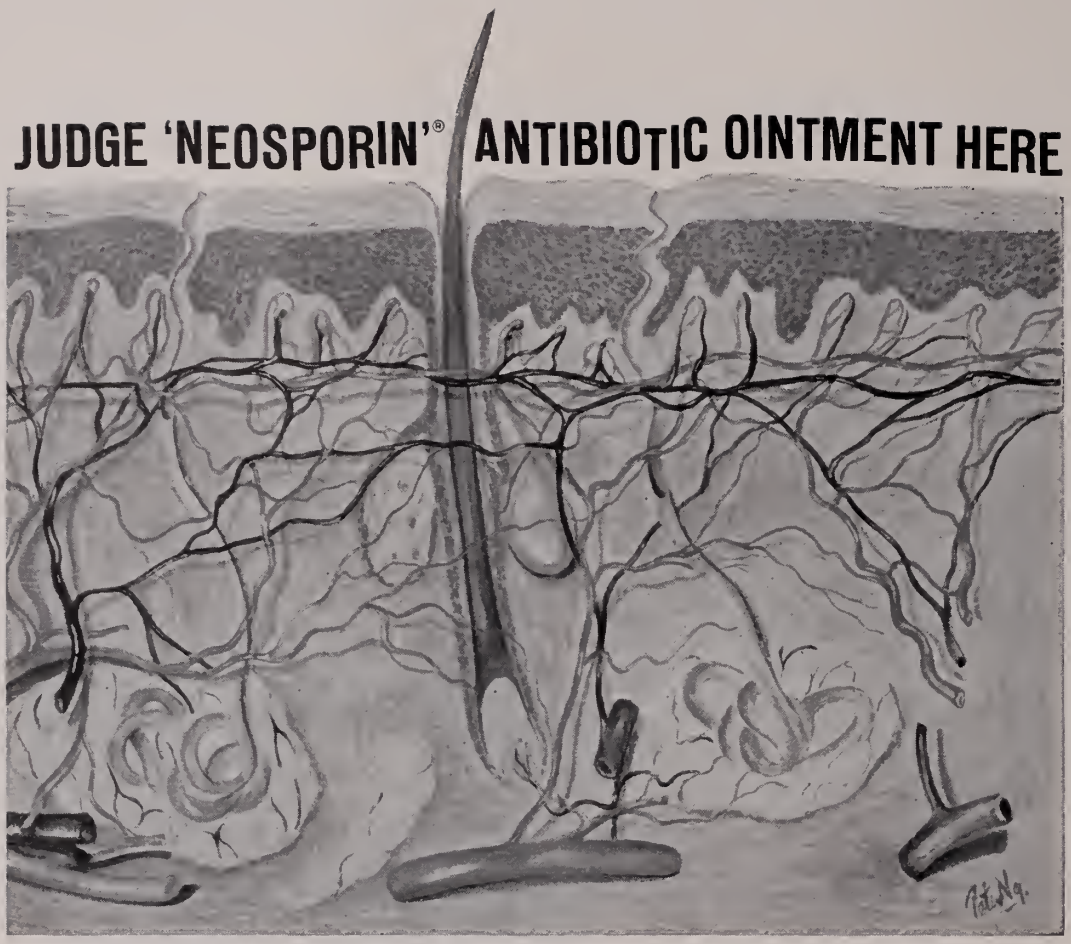




SANBORN COMPANY
MEDICAL DIVISION *Waltham 54, Mass.*

BETHESDA *Branch Office* 8118 Woodmont Ave.
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JUDGE 'NEOSPORIN'® ANTIBIOTIC OINTMENT HERE



Results on SKIN are the true test of a topical anti-infection agent. Because no *in vitro* test can duplicate a clinical situation in living skin, clinical use alone proves topical effectiveness. In thousands of cases of bacterial skin infection, consistently good results prove that 'Neosporin' Ointment works where topical efficacy counts—on the patient's skin. Why? The antibiotics diffuse readily from the special petrolatum base since they are insoluble in the petrolatum but readily soluble in tissue fluids.

'Neosporin' Ointment is bland, and rarely sensitizes.

'NEOSPORIN'® BRAND POLYMYXIN B BACITRACIN NEOMYCIN ANTIBIOTIC OINTMENT

Supplied: Tubes of 1 oz., ½ oz. with applicator tip, and ⅛ oz. with ophthalmic tip.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York



Put your low-back patient back on the payroll

Soma relieves stiffness —stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days. (J.A. M.A. Vol. 172, No. 18, April 30, 1960.)*

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. USUAL DOSAGE: 1 TABLET Q.I.D.

The muscle relaxant with an independent pain-relieving action

SOMA®

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey

NEW **SPECIAL COUGH FORMULA**
for Children

Pediacof

Trademark

SOOTHING DECONGESTANT AND EXPECTORANT

Each teaspoon (5 cc.) contains:

Codeine phosphate	5.0 mg.
Neo-Synephrine® hydrochloride (brand of phenylephrine hydrochloride)	2.5 mg.
Chlorpheniramine maleate	0.75 mg.
Potassium iodide	75.0 mg.



Bright red, pleasant tasting, raspberry flavored syrup

Dosage:

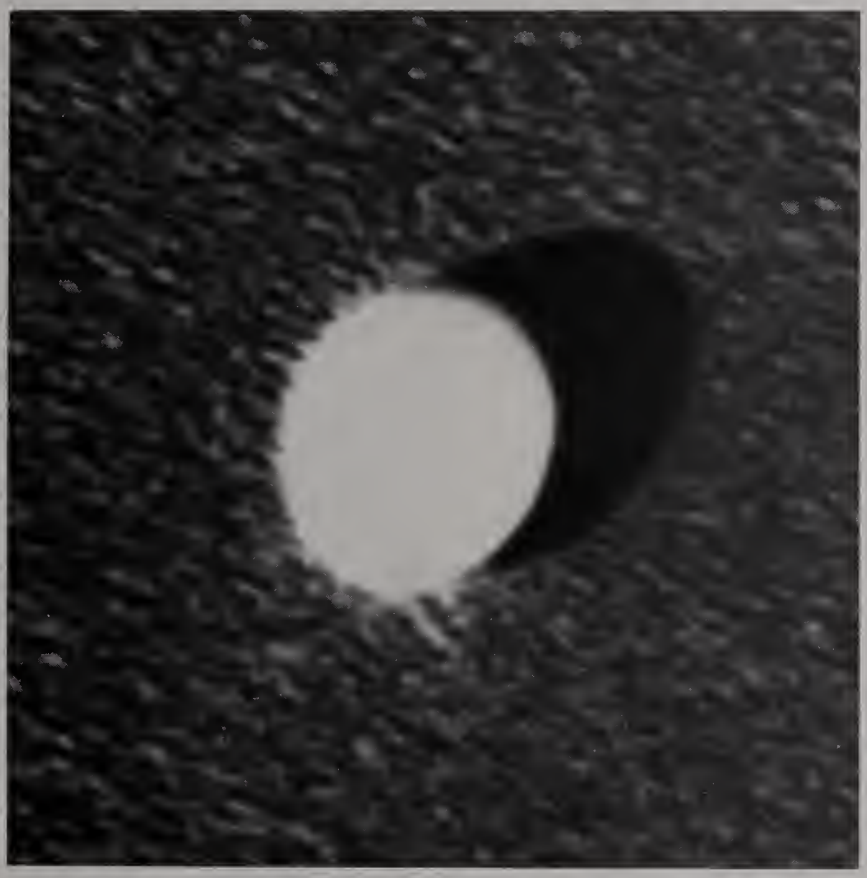
Children from 6 months to 1 year, 1/4 teaspoon; 1 to 3 years, 1/2 to 1 teaspoon; 3 to 6 years, 1 to 2 teaspoons; 6 to 12 years, 2 teaspoons. Every four to six hours as needed.

How Supplied:
Bottles of 16 fl. oz.

Exempt Narcotic

Winthrop
LABORATORIES
New York 18, N Y

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.





Goliath *David*

Against the formidable and ubiquitous Staphylococcus aureus, PANALBA* gives you a powerful weapon. PANALBA is a selective combination of novobiocin (for its unique effectiveness against staph) and tetracycline (for its breadth of coverage). From the outset, your treatment has broader antibacterial coverage resulting from the simultaneous administration of two antibiotics that complement each other. They were carefully chosen for this purpose.

That is why PANALBA offers excellent chances for therapeutic success.

Reminder advertisement. Please see package insert for detailed product information.

Upjohn

THE UPJOHN COMPANY
KALAMAZOO, MICHIGAN

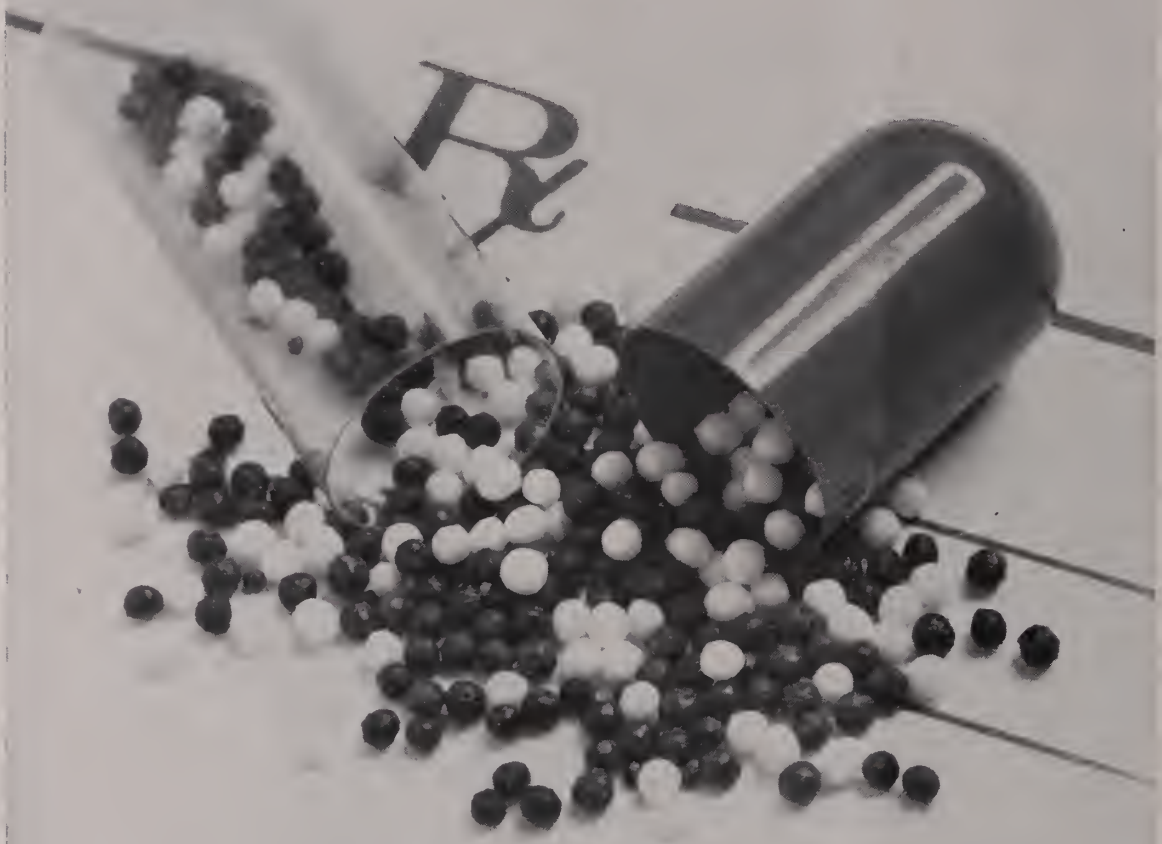
*TRADEMARK, REG. U.S. PAT. OFF.

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663 gentle doses of iron in a single capsule, once daily

ONE-IRON™

(capsules of timed-release ferrous fumarate)



the best-tolerated ferrous iron
timed for release in the area of maximum absorption

A single capsule of ONE-IRON—taken once a day by your iron-deficient and even your iron-sensitive patients—sprinkles tiny particles of ferrous fumarate throughout the duodenum and jejunum over a four-hour period for virtually complete and trouble-free absorption.

Not only is maximum hemoglobin regeneration obtained, but the possibility of gastric discomfort, diarrhea or constipation from ionized iron is virtually eliminated.

Moreover, ferrous fumarate itself (the sole active ingredient of ONE-IRON) is better tolerated than ferrous sulfate, succinate or gluconate.[1-3]

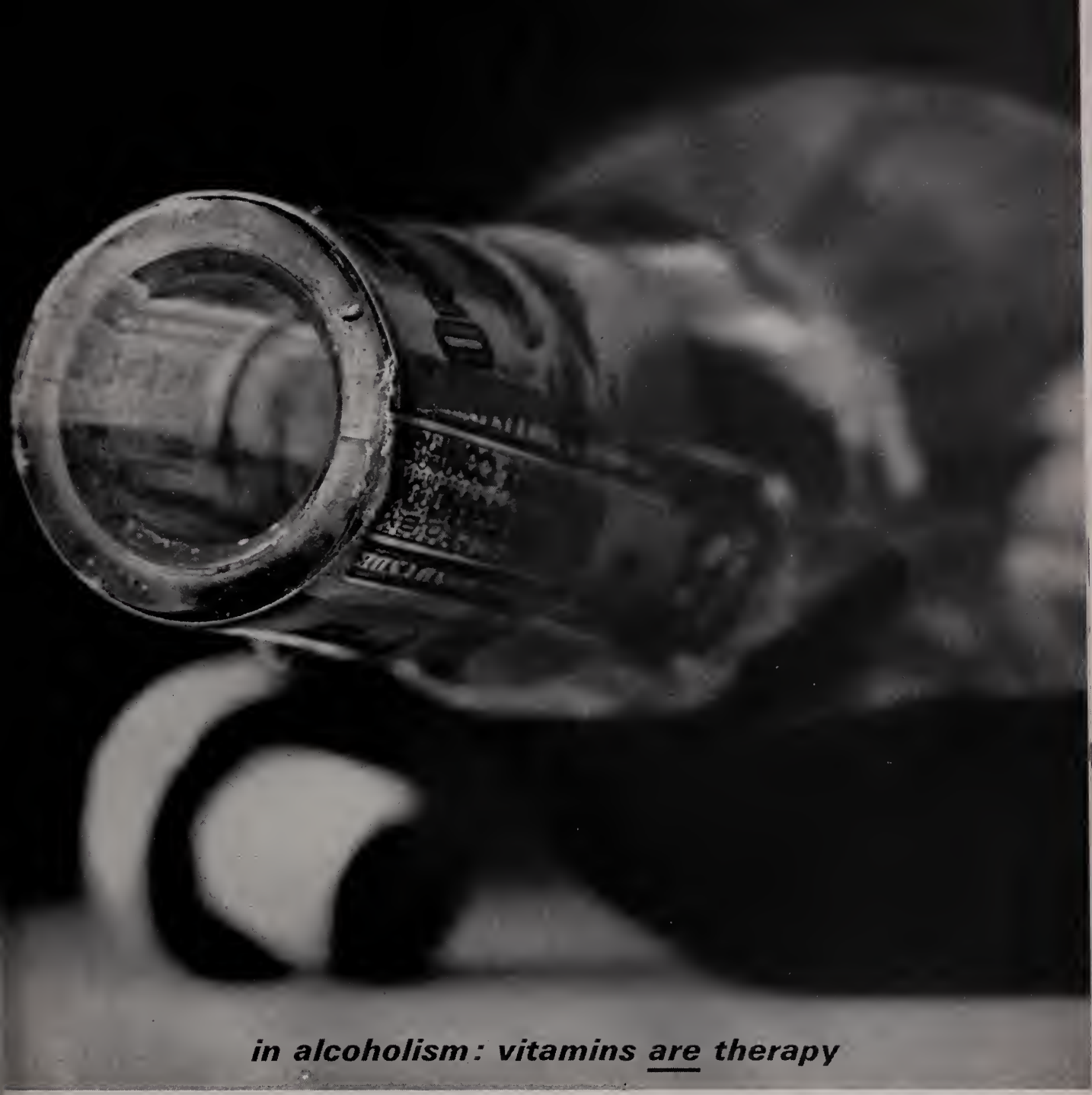
Each timed-release ONE-IRON capsule provides ferrous fumarate, 325 mg. (5 grs.), equivalent to 107 mg. of elemental iron.

Dose—one capsule daily with breakfast.

Supplied—bottles of 100 and 1,000 clear and white capsules.

References: 1. Berenbaum, M.C. et al.: Blood 15:540, 1960. 2. Shapleigh, J.B. and Montgomery, A.: Am. Prac. & Digest Treat. 10:461, 1959. 3. Swan, H.T. and Jowett, G.H.: Brit. M.J. 2:782 (Oct. 24) 1959.

HART LABORATORIES
Division of A. J. Parker Co.
Winston-Salem, N. C.



in alcoholism: vitamins are therapy

A full "comeback" for the alcoholic is partly dependent on nutritional balance...aided by therapeutic allowances of B and C vitamins. Typically, the alcoholic patient is seriously undernourished...from long-standing dietary inadequacy, from depletion of basic reserves of water-soluble vitamins. Supplied in decorative "reminder" jars of 30 and 100.

Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 mg.
Vitamin B_2 (Riboflavin)	10 mg.
Niacinamide	100 mg.
Vitamin C (Ascorbic Acid)	300 mg.
Vitamin B_6 (Pyridoxine HCl)	2 mg.
Vitamin B_{12} Crystalline	4 mcgm.
Calcium Pantothenate	20 mg.

Recommended intake: Adults, 1 capsule daily, or as directed by physician, for the treatment of vitamin deficiencies.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

STRESSCAPS®

Stress Formula Vitamins Lederle



KENT'S development of the "Micronite" filter revolutionized the cigarette industry. Shortly after introduction of Kent with its famous filter, the swing to filter cigarettes got started in earnest. And no wonder. Kent with the new "Micronite" filter refines away harsh flavor, refines away rough taste, for the mildest taste of all.

Treat your taste kindly with KENT

The finer the filter, the milder the taste

A PRODUCT OF P. LORILLARD COMPANY · FIRST WITH THE FINEST CIGARETTES · THROUGH LORILLARD RESEARCH

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CONTINUOUS

PROTECTION IN

ANGINA PECTORIS

ANTORA...

PROVIDES 10 - 12 HOURS GRADUAL RELEASE . . .

Timed Disintegration Capsules, containing 30 mg. Pentaerythritol Tetranitrate . . . a clinically proven dosage form. For assured 24 hour control, administer one Antora capsule before breakfast and one before evening meal. ANTORA REDUCES NITROGLYCERIN REQUIREMENTS . . . IMPROVES EKG TRACINGS . . . PROVIDES BETTER EXERCISE TOLERANCE . . . REDUCES NUMBER AND SEVERITY OF ATTACKS. Administer with caution in glaucoma.

FOR THE UNDULY APPREHENSIVE PATIENT . . .

ANTORA-B...

Timed Disintegration Capsules, containing 30 mg. Pentaerythritol Tetranitrate plus 50 mg. Secobarituric Acid. Medication is released over 10 to 12 hours with fewer side effects and less "hangover" than the longer acting barbiturates. As with Antora, capsules are administered only twice daily instead of the usual 8 to 12 tablets. Administer with caution in glaucoma.

REFER TO PDR

PAGE 643

Supplied: Bottles of 60 and 250. Literature and clinical samples available.

Mayrand, inc.

PHARMACEUTICALS

1042 WESTSIDE DRIVE

GREENSBORO, NORTH CAROLINA

Whatever happened
to handkerchiefs?



Remember when handkerchiefs were used for stuffy or runny noses? *That was before Naldecon.* Naldecon lets your head-cold patient breathe the way he should. Through the nose. Honest relief that lasts up to 8 hours with one sustained-action tablet. (When you need it, even *half* a tablet retains the sustained-action feature.) The counterbalance between *two* antihistamines and *two* decongestants* usually gives excellent results—seldom causes overstimulation or sedation. Keep handkerchiefs for showing. Prescribe Naldecon.

*Each tablet contains phenylephrine HCl 10 mg., phenylpropanolamine HCl 40 mg., phenyltoloxamine citrate 15 mg., chlorpheniramine maleate 5 mg.—half in the outer layer, half in the sustained-action core. Each teaspoonful (5 cc.) of Naldecon Syrup contains the equivalent of one-half tablet.

NALDECON®

long-acting nasal decongestant/antihistamine

BRISTOL LABORATORIES
Div. of Bristol-Myers Co.
Syracuse, New York



When you choose an anorectic—

"Does it help the patient maintain the proper diet, is it free of dangerous side effects, and does the patient like it?"[1]

Perhaps you'll find, as Stevenson did, "['Eskatrol'] seems to meet these criteria better than most."

1. Stevenson, L.E.: M. Ann. District of Columbia *30*:409 (July) 1961.



ESKATROL®
SPANSULE®
brand of sustained release capsules

PRESCRIBING INFORMATION

Formula: Each 'Eskatrol' *Spansule* sustained release capsule contains Dexedrine® (brand of dextro amphetamine sulfate), 15 mg., and Compazine® (brand of prochlorperazine), 7.5 mg., as the dimaleate.

Recommended Dosage: One 'Eskatrol' *Spansule* capsule daily, taken in the morning.

Side Effects: Side effects (chiefly nervousness and insomnia) are infrequent, and usually mild and transitory.

Cautions: Clinical experience has demonstrated that 'Eskatrol' (containing the phenothiazine derivative, prochlorperazine) has a wide margin of safety and that there is little likelihood of blood or liver toxicity or neuromuscular reactions (extrapyramidal symptoms). The physician should be aware, however, of their possible occurrence.

'Eskatrol' *Spansule* capsules should be used with caution in the presence of severe hypertension, advanced cardiovascular disease, or extreme excitability.

Prescribing information adopted Jan. 1961

Smith Kline & French Laboratories SK&F

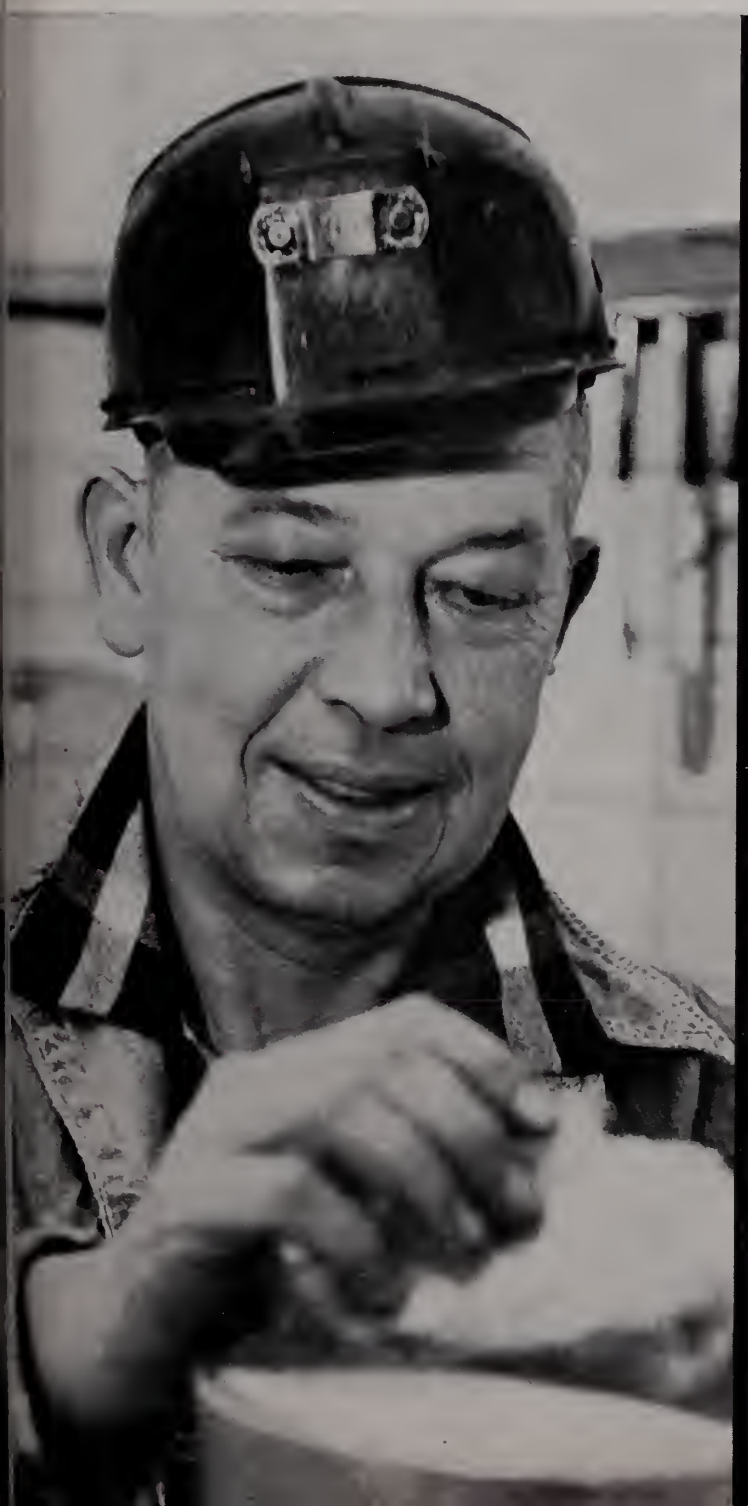
Long-term effectiveness of METICORTEN continues to be demonstrated in J. G., the arthritic miner whose case was first reported a year ago and who is leading a fully active life today, *after seven years of therapy.*

Schering



before METICORTEN—Rheumatoid arthritis commencing in 1949 with severe shoulder joint pain....Subsequent involvement of elbows and peripheral joints with swelling and loss of function....Complete helplessness by 1951 (fed and dressed by wife)....Unable to work despite cortisone, gold and analgesics....Hydrocortisone ineffective in 1954. since **METICORTEN**—Prompt improvement with METICORTEN, begun April 2, 1955....Returned to work that same year....Maintained to date on METICORTEN, 10-15 mg./day, without serious side effects and without losing a day's work at the mine because of arthritis.... Joint pain still controlled and full use of hands and limbs maintained. The foregoing information is derived directly from a case history provided by Joel Goldman, M.D., Johnstown, Pa. Original photograph of Dr. Goldman's patient taken November 10, 1960; follow-up photographs, November 29, 1961. METICORTEN,® brand of prednisone. For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, New Jersey.

S-010

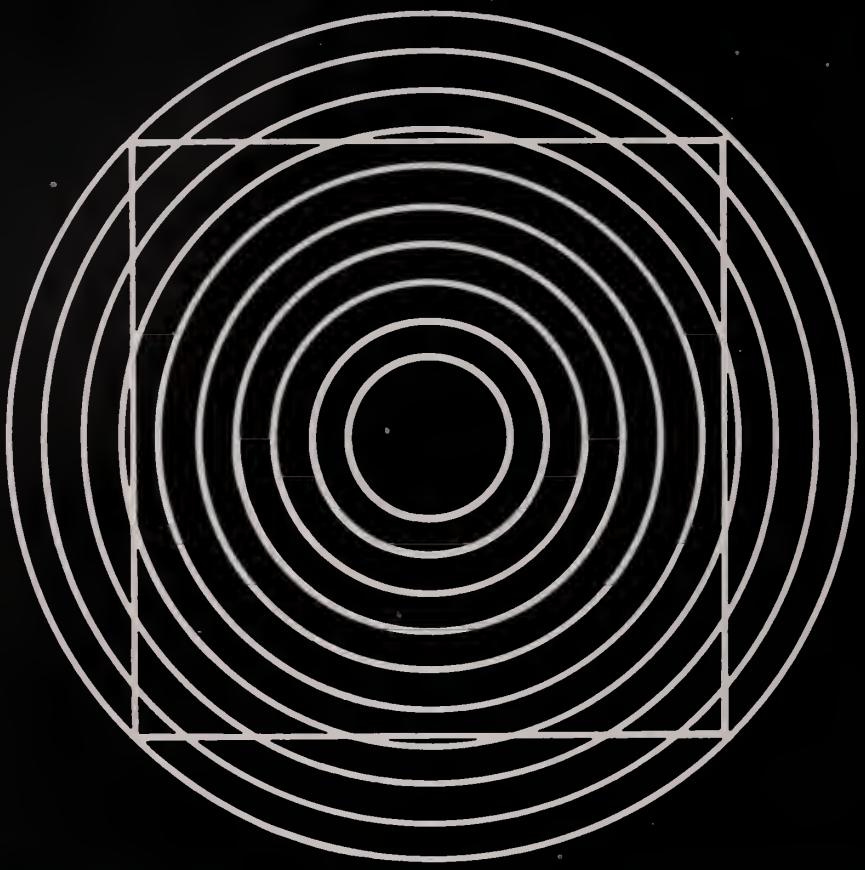


remember this arthritic miner, doctor? he's still working after another successful year (his 7th) on Meticorten®

brand of prednisone



straight or concave?



If the confusing array of concentric circles were removed, it would be easy to see that the sides of the square are perfectly straight.

Likewise, when claims of "price" and "blood level" advantages are viewed in proper perspective, it becomes clear that it's what a drug *does* that counts.

V-Cillin K® achieves two to five times the serum levels of antibacterial activity (ABA) produced by oral penicillin G.[1] Moreover, it is highly stable in gastric acid and, therefore, more completely absorbed *even in the presence of food.* Your patient gets more dependable therapy for his money . . . and it's therapy he really needs.

For consistently dependable clinical results
prescribe V-Cillin K in scored tablets of 125 and 250 mg. or V-Cillin K, Pediatric, in 40 and 80-cc.-size packages. Each 5-cc. teaspoonful contains 125 mg. crystalline potassium penicillin V.

Lilly

V-Cillin K® (potassium phenoxymethyl penicillin, Lilly) (penicillin V potassium)

1. Griffith, R. S.: Antibiotic Med. & Clin. Therapy, 7:129, 1960.

233267

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.

The Virginia
MEDICAL MONTHLY

October, 1962
Vol. 89, No. 10
Whole No. 1325

Guest Editorial . . . .

The Hospitals' Position Regarding Care for the Aged

RECENTLY the American Medical Association and the Administration in Washington have publicly debated the issue of how best to finance health care of the aged. The position of the American Hospital Association, while clearly defined, has not been expressed through the medium of television, radio or the press to a similar extent.

On January 4, 1962, after careful study of the needs of the retired aged and the over-all economic implications, statements of policy were adopted by the House of Delegates of the American Hospital Association and by the Member Plans of the Blue Cross Association. The policies adopted by these important organizations were arrived at after analysis of a special study of the problem of financing and providing hospital care for the aged persons which was undertaken in October 1961. This study provided a factual basis for policy determination on the respective roles of voluntary institutions and government in bringing a greater measure of health security to all of our elderly citizens. The thoroughness of consideration by the American Hospital Association and the Blue Cross Association in deliberations at local, state and regional levels was a direct reflection of the importance of the problem of financing health care of the aged.

The American Hospital Association policy statements reflect a preference for voluntary institution responsibility and administration, and the statements acknowledge the uniqueness of the financing problem involved with respect to the aged group and the resultant need for government participation. However, the statements reiterate that this participation should be under programs such as Kerr-Mills and not through the Social Security mechanism.

The statement of policy adopted by the House of Delegates of the American Hospital Association, and supported by the Virginia Hospital Association, should be of interest to the physicians of the Commonwealth. The Blue Cross Plans within Virginia have already indicated their interest in implementation of an effective voluntary non profit program for financing care of the aged. The Virginia General Assembly has provided the legislation under which State participation under the Kerr-Mills Act is possible, and appropriations have been made to implement the program effective January 1, 1964. While this is later than perhaps desired, the State and Local Hospitalization Program, recently augmented under provisions of the Old Age Assistance Program, must be recognized as a continuing effective means of meeting hospitalization costs of needy and near-needy Virginia residents. As re-

cently as May 28, representatives of the Virginia Hospital Association and the State Department of Welfare and Institutions met to discuss means whereby these programs could be strengthened in keeping with the American Hospital Association policy which follows:

"1. We reaffirm the crucial need to continue vigorous efforts to foster realistic and equitable programs in every state for the adequate health protection of the indigent and medically indigent under a mechanism similar to the Kerr-Mills Act.
(It was understood that to improve the effectiveness of state programs under the Kerr-Mills Act more attention must be placed on adequate reimbursement to participating hospitals and other health care institutions.)

2. We recommend the earliest possible implementation of a national Blue Cross program for a voluntary nonprofit plan available to all persons aged 65 years and over.

3. We recognize that government assistance is necessary to effectively implement this national Blue Cross proposal in order to enable many retired aged persons to purchase this health protection through the voluntary prepayment system. Conditional upon the administration of this proposed plan by the voluntary nonprofit prepayment system, the tax source of the funds is of secondary importance to us.
(The last sentence was interpreted to mean that the source of funds is of secondary importance to us provided the proposed plan is administered by the voluntary non-profit prepayment system and not by the Social Security Administration.)

4. The individual aged person should receive governmental financial assistance on a decreasing scale related to income, the low income person to receive major or even total assistance and the higher income person to receive less. The determination for government assistance should be made in accordance with current income reported for federal income tax purposes or, if this is not possible, some legally acceptable declaration of income. The determination should not be made in accordance with the usual means test determinations made under public welfare programs.

5. We emphasize urgency and importance of planning for provision of adequate facilities and personnel in order that skills and services may be available to render high quality care to the aged.

6. It is the sense of this meeting of the House of Delegates of the American Hospital Association that the best interests of the retired aged will not be served by the passage of the King-Anderson Bill. Our opposition to this bill is based upon careful study of the needs of the retired aged and the over-all economic effect of such a program. We believe that the retired aged will be better served by a program such as has been proposed by Blue Cross Plans."

JOHN M. STACEY.

Chairman of the Council on Public Relations and Education of the Virginia Hospital Association, and Director of University of Virginia Hospital, Charlottesville.

The Richmond Academy of Medicine—1820-1900

HARRY J. WARTHEN, M.D.
Richmond, Virginia

The history of the Richmond Academy of Medicine is fascinating to all who are interested in the development of medicine in Virginia.

WHEN the fourth United States census was taken in 1820, Richmond had a population of approximately 12,000, about equally divided between white and Negro. A town of this size, reasoned our medical forebears, should have a medical society. So, on December 15 of that year, 17 Richmond and Manchester physicians formed an organization with the misleading name of The Medical Society of Virginia. This meant that the Richmond Academy of Medicine and our present state organization had a common genesis, for during the first 30 years of its existence, membership in the Medical Society of Virginia was confined largely to physicians living in the Richmond area.

Dr. James McClurg was elected president at the January 1821 meeting. Dr. McClurg was born in Hampton in 1747. His name, for many years, was one to conjure with both medically and politically. He was educated in Edinburgh, served briefly as William and Mary's only Professor of Anatomy and Medicine and for several years was a surgeon in the Revolutionary Army. Following the surrender at Yorktown, Dr. McClurg moved to Richmond where he opened an office on the site of our present post office. He was probably Richmond's first specialist, for he practiced only medicine and during his later years on a purely consulting basis. He served for many years as President of Richmond's Common Council.

When the Constitutional Convention met in Philadelphia in 1787 to adopt the present constitution of the United States, Dr. McClurg was one of Virginia's delegates. His fellow committeemen were James Madison,

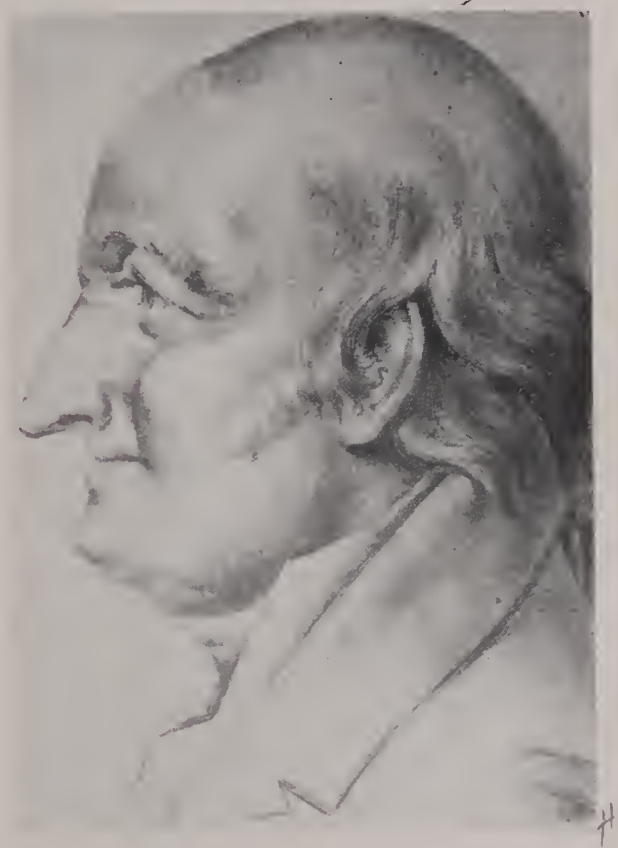


Fig. 1. Dr. James McClurg (1747-1823). First President of The Medical Society of Virginia.

George Mason, Edmund Randolph, George Wythe, John Blair, and George Washington. So impressed was James Madison by his medical confrère that when he became president he seriously considered appointing McClurg Secretary of State. All in all our first president had done very well. This final honor, though, came too late, for in

Read before the Academy of Medicine, October 25, 1960.

1821 Dr. McClurg was well advanced in his eighth decade and he proved too infirm to preside at the meetings of the Medical Society. However, following an amiable Virginia custom, he was re-elected the following year and given a second opportunity to demonstrate that he was too feeble to carry out the duties of president. Dr. James Henderson, a transplanted Scot, who, as vice-president, had presided during the preceding two years, was then elected president in his own right and the Society moved on to incorporation by the State Legislature on January 2, 1824.

In many ways the constitution of this early society was similar to our present one. The membership requirements were detailed and attempted to provide for the varied educational backgrounds of the practitioners of that era. The applications for membership could not be voted on until at least one month had elapsed and favorable action required approval by three-fourths of those present. An admission fee of ten dollars was required and the annual dues were five dollars. Each member was entitled to a certificate of membership as prescribed in the by-laws. Somewhere along the line this custom has fallen into disuse. Members guilty of gross misconduct, either as physicians or citizens, were subject to expulsion if three-fourths of the members so decreed.

The Society met in Richmond on the third Saturday of each month "at early candle light". Seven members constituted a quorum. It is worthy of note that then, as now, the stated meeting in December was designated the annual meeting and officers were elected at this time. The treasurer was placed under bond for double the amount it was anticipated he would have access to during his term of office. Amending the constitution required three readings and a three-fourths favorable vote. No member was permitted to leave the hall while the meeting was in progress without obtaining permission of the presiding officer.

A medical library, with detailed rules concerning the borrowing of books, was established. Despite these precautions, the minutes record the frequent disappearance of these books and none of these early volumes has come down to us. These meetings were held in the Athenium, which was located one block from the present Academy building, near the corner of 11th and Marshall Streets.

When the Society was incorporated in 1824, its membership had grown to 24 and included Drs. William Foushee and John Adams. Dr. Foushee was Postmaster and Richmond's first Mayor. Dr. Adams had the distinction of being elected Mayor eight times and to him went the honor of welcoming LaFayette to the city. He lived on Church Hill and his house was later the home of Miss Van Lew, the Federal spy. The names of Foushee and Adams are preserved by two of our downtown streets. These physicians were presidents of this society so it is easy to see why our early presiding officers were well versed in parliamentary procedure.

The Medical Recorder of Philadelphia published papers read at several of the early Richmond meetings but the last reference to any activity on the part of The Medical Society of Virginia appeared in 1826. Why the Society became inactive is not known but so far as can be determined no further meetings were held until December, 1841. The old constitution was then readopted, officers were elected, and meetings were resumed and held in the Hall of the Richmond Library Association at 11th and Main Streets. During the next few years there was a gradual increase in the number of out-of-town members and in 1846 an abortive attempt was made to organize the Society on a state-wide basis.

The Richmond physicians discouraged all efforts to change the society's local status but the appearance, in 1851, of *The Stethoscope*, Virginia's first medical journal, gave impetus to the state-wide movement. The Medical Society of Virginia became at last, as its name had always suggested, a state organization, in 1852. Dr. Beverley Ran-

dolph Wellford of Fredericksburg was elected the first president. Two years later Dr. Wellford moved to Richmond, where he became a member of the faculty of the



Fig. 2. Dr. Beverley Randolph Wellford. President of The Medical Society of Virginia and the American Medical Association.

Medical College of Virginia and one of Richmond's leading practitioners.

Richmond did not long remain without a local society, for on June 12, 1852, the Medico-Chirurgical Society of Richmond City was formed. Forgetting its recent differences with The Medical Society of Virginia, it shared office space with the state organization in an imposing room at the corner of 12th and Main Streets. This sharing of office space continued off and on until about a decade ago, when the Medical Society moved first to 1105 West Franklin Street and more recently to Windsor Farms.

The year 1852 proved an eventful one for Richmond medicine in more ways than one, for on May 4 the American Medical Association held its fifth annual meeting in this city. Two hundred and seventy-five delegates assembled in the Second Presbyterian Church on North Fifth Street (which is still standing and in daily use by its original congregation) and Dr. B. R. Wellford was elected president. He thus served as president of both his state and national associations during two busy years. Shortly after this he added a third presidency, when the local society also elected him to this office. So far as I have been able to determine, Dr. Hunter Holmes McGuire was the only other Richmond physician to share this triple honor.

The Medico-Chirurgical Society languished despite its membership having risen to 44. Meetings were held at increasingly long intervals. Efforts were made to stimulate attendance by inviting guest speakers of renown to address the local group but to no avail and the society became inactive about 1855. Despite this apparent lack of scientific zeal individual physicians in Richmond received national recognition. Dr. R. C. Gooch was made chairman of the committee appointed by the American Medical Association to report upon the safety of ether anesthesia, which was just then coming into general use. In extenuation, it must be recalled that the Medical College of Virginia was now in operation and faculty meetings of that institution no doubt served in part as a substitute for the erratic gatherings of the local society.

It is easy to understand why there was no re-activation of the local organization during the Civil War years. During the 1861-65 period the city increased from 40,000 to 100,000 in population without a corresponding increase in civilian physicians. In fact many local practitioners were away in the Army of Northern Virginia and the work load of those who remained at home must have been unduly heavy. This supposition is borne out by the reorganization of the local society in January, 1866 under a new name with a modern ring—The Richmond Academy of Medicine. Meetings were held on the first and third Tuesday nights

in the society's hall next door to the Y.M.C.A. on the eight hundred block West Main Street. The old meeting room on East Main Street had doubtless been consumed by the Evacuation Fire nine months earlier.

Following the reorganization of 1866, the society took on new vigor and the subjects dealt with at the scientific sessions appear timely and valuable. Typhoid, malaria, quinine, meningitis, diphtheria, and tuberculosis were discussed. The Academy must have finally exhausted these topics for the *Virginia Medical Monthly* then, as now, eager to publish articles by local authors, in the late eighteen-seventies sadly reported "The Richmond Academy of Medicine proceedings have not been reported for some time because nothing of professional interest has occurred."

This does not mean that the meetings were devoid of interest. While the total store of medical knowledge was limited by present day standards, there were other outlets for the nineteenth century physician. The practitioners of that era were a proud, high spirited group, who were quick to take offense and equally ready to ask for redress. Our medical forebears by any standard were a highly individualistic lot. They made decisions without having to give thought as to how a hospital accreditation inspector, a dean of nurses or a plantiff's attorney might feel about the subject under consideration. About the only person who dared to question the action of a Virginia physician was another physician and when this occurred, the issue was usually joined forthwith.

It is easy to see how misunderstandings could arise before the day of the telephone and the automobile. The uncertainty of communication and the slowness of travel frequently led to several physicians being called in an emergency. This undoubtedly engendered ill feeling on occasions. If two or more practitioners arrived at the patient's bedside about the same time, two courses were open to them. If they were friends, they could hold a consultation. If their relationship was not the best to begin with, they could, and sometimes did, fight a duel. This means that considerable time at medical meetings was devoted to discussing abstract ethical problems, with occasional concrete applications of a more personal nature.

About 1840, Dr. Branch T. Archer, one of our local members, fought a duel near



Fig. 3. Duel between Dr. Crump and Dr. Archer. Dr. Crump was killed.

Powhatan Court House with Dr. Otway Crump. Dr. Crump was killed and Dr. Archer moved to Texas where less attention was paid to such matters. This affair was not too surprising at the time, for physicians shared with newspaper editors and politicians the questionable distinction of furnishing most of the duelists during the last century.

Another, and better known, difference of opinion arose a little later between two members of the Richmond Academy of Medicine. This, fortunately, was resolved without recourse to firearms. The prominence of the participants resulted in the incident receiving considerable publicity and the latter phase of the exchange was covered by New York correspondents. The physicians in question were among the most esteemed practitioners of their day in Richmond. They both had outstanding war records and each had been honored by the presidency of our local medical society. One in fact, became President of The Medical Society of Virginia and actually went on to higher elective honors.

The incident that precipitated the charges and counter charges concerned the sudden death of the wife of a prominent Richmonder, following administration of 5 minims of a solution of morphia. The first physician was called to see her on the evening of May 1, 1875. She was seven months advanced in pregnancy and complained of paroxysmal abdominal pain, with headache and nausea. A few hours after the hypodermic was given, the pain returned and was followed by a generalized convulsion. The family was unable to locate the first physician and hastily summoned another practitioner who arrived a few minutes before her death. He thought she died from an idiosyncrasy to morphine, or perhaps from an overdose of that drug. The first physician, who arrived shortly afterwards, naturally attributed her death to a toxemia of pregnancy.

The matter was discussed in great detail by the principals and their friends on the floor of the Academy during the next few meetings. Apologies were offered and later withdrawn. Charges of unethical conduct were made by both participants. A heated correspondence was exchanged and a committee was set up within the Academy to deal with the situation. The majority of the physicians in the Academy appeared to have taken sides in the argument and did what they could to add fuel to the flames.

The matter came to a head at the June 17 meeting of the Academy. Harsh words were passed, a threatening gesture was made, and a pocket knife, which missed its mark, but struck a bystander, was thrown. The belligerents were restained, an alarm was sounded and Richmond police from the Third Precinct Station with a magistrate arrived on the scene. The meeting stood adjourned. Dr. Harris, the Academy member who was struck on the wrist by the knife, was shaken but not seriously hurt. He stated that he came only to listen to the scientific program.

The following morning four members of the Academy appeared in the police court before Justice White. The principals were placed under $2,500 bond "to keep the peace toward all citizens of this Commonwealth but especially toward each other for twelve months". This brought the matter to a close, a duel was not fought, and an uneasy peace was restored in the Academy.

The proximity of the Medical College of Virginia to the Richmond Academy of Medicine has not always been an unmixed blessing. The College went through a prolonged period of reorganization after the Civil War, which occasioned unhappiness in many quarters and this, in turn, caused repercussions in the Academy. Within a period of a few months during 1881 and 1882 Doctors McGuire, Cunningham, Manson, and McCaw resigned. Soon after this Governor Cameron replaced the Board of the Medical College with an entirely new group. When the new board attempted to take over the property by force, they were held at bay by several members of the old faculty with the aid of the overworked but willing Richmond Police. One new board member was arrested and carried to the local jail. This effort to reorganize the Medical College failed but a new medical group—the Richmond Medical and Surgical Society—was formed as a result of the underlying discontent.

This meant for ten years Richmond had two rival medical societies. The new group met twice a month in Schiller Hall at 608 East Broad Street and appeared to present better programs than the older society. The two organizations finally patched up their differences and merged in 1890 with 60 members and a still longer name—The Richmond Academy of Medicine and Surgery. Again the Society established a library which they asked the State of Virginia to house. After a short time, the books were removed from the shelves of the State Library and discarded, at least we have none of them now.

In 1893 another upheaval took place at the Medical College of Virginia and a second medical school came into being in

Richmond—The University College of Medicine. The new medical school and associated hospital occupied the north side of Clay Street on the 1100 block immediately west of our present Academy building. Dr. Hunter McGuire was president and a large and able faculty was assembled from the local physicians, who were not currently associated with the Medical College. This time the Academy rode out the storm but the minutes of the meetings during this period indicate that sweetness and light were not the invariable rule.

The combined society met in the Y.M.C.A. and the scientific program for the first time had a modern ring. Several programs dealt with the grippe epidemic of 1890, when 40,000 Richmonders were affected. Appendicitis was first discussed in the January, 1893, meeting by Dr. W. W. Parker. I am sorry to relate that a progress report by Dr. Parker one month later disclosed that Richmond's first operative case of appendicitis died sometime between the January and February meetings. Frequent reports of successful appendectomies appeared during the late eighteen nineties, as well as many references to bladder and kidney surgery. Noticeably absent was any mention of operations upon the stomach or gallbladder or any reference to coronary thrombosis or hepatitis prior to 1900.

This, in brief, is the story of the Richmond Academy of Medicine during the first eighty years of its existence. The first forty years do not come through to us clearly. The records are fragmentary, the names of the physicians and the diseases they treated in the main are strange and unfamiliar. The second 40 years from 1860 to 1900 have a much more contemporary note. This was the era which saw the general acceptance of anesthesia, the discoveries of Pasteur and Lister with the advent of antisepsis and asepsis, the control of the great epidemics and the understanding of tissue pathology —all of which served as the foundation on which we of the twentieth century have builded. The physicians too, stand out more clearly. Some of them we knew. Dr. Ramon Garcin, who died in 1960 at the age of 93 was elected second vice-president of the Academy in 1895—sixty-five years ago.

The story of the Academy is the sum total of the lives of the individual members



Fig. 4. Dr. Hunter McGuire (1835-1900). President Richmond Academy of Medicine, The Medical Society of Virginia and the American Medical Association.

and probably no one epitomizes the time and its trials and triumphs better than Dr. Hunter McGuire. In December, 1859 he arrived in Richmond at the head of several hundred southern medical students from Philadelphia, who migrated southward, when they detected an unpleasant chill in the air after the hanging of John Brown. Early in 1900 Dr. McGuire suffered a stroke and died before the year was out. During these 40 years which coincide with the last half of the period under discussion, he lived many lifetimes in terms of accomplishment.

After four years of distinguished service in the Confederate Army, which made his name a household one throughout the South, he returned to Richmond where he taught

and practiced surgery for the remainder of his life. Though he probably had the largest practice in the city, the poverty of the citizens during the five years of military occupation after the Civil War was so universal that he, of necessity, made his rounds on foot and not until 1870 could he afford to own a horse. He served as Professor of Surgery at the Medical College of Virginia for 15 years and later as President and Professor of Clinical Surgery at the University College of Medicine, which he organized in 1893. Dr. McGuire was a pioneer in the development of antiseptic and later aseptic surgery in this area and especially successful in the treatment of urological conditions. His surgery was bold and imaginative. His writings were lucid and forceful and covered a wide range of subjects. He organized St. Luke's Hospital, the first privately owned general hospital in the city.

Dr. McGuire's fame increased with the years and he became in turn, president of the Richmond Academy of Medicine, The Medical Society of Virginia, the American Surgical Association, the Southern Surgical Association, and the American Medical Association. What greater professional honors could come to a Virginia physician? This was the stuff of which our forebears were made. May we of the Academy today prove worthy of our illustrious heritage.

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312 Medical Arts Building
Richmond, Virginia

New Books.

W. B. Saunders Company features the following recent books in their full page advertisement appearing elsewhere in this issue:

Parson and Sommers—Gynecology. A useful new guide to management of gynecologic disease—parallels the grow and aging patterns of women covering the disorders accompanying each stage of the life cycle.

Davidsohn and Wells—Todd-Sanford Clinical Diagnosis by Laboratory Methods. Explicit guidance on how to perform every possible clinical test—what to do, when and how to do it, and how to interpret your results.

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Richmond Academy of Medicine—1900-1960

CARRINGTON WILLIAMS, M.D.
Richmond, Virginia

The history of the Richmond Academy of Medicine is fascinating to all who are interested in the development of medicine in Virginia.

IN ONE OF HIS FAMOUS SPEECHES Patrick Henry said "I know of no way of judging the future but by the past." It seems to me that this is a very happy and important meeting of the Academy where we look backward to its accomplishments in the years gone by.

Dr. Warthen has given you the story from the founding of the Academy to the beginning of the twentieth century; it is my purpose to tell you briefly of the last sixty years.

The story of the Academy is so closely related to that of our city that it is appropriate as a background to picture Richmond in 1900 and to record some of the medical problems of that time.

The population was about 80,000 and there was practically no suburban development. The residential streets were not paved, dust was a real problem and ameliorated to some extent by carts which sprinkled a thin layer of water over them daily. The water supply was from the James River and delivered into the homes untreated; it was therefore usually the color of thin coffee. Milk was delivered from tanks in wagons into open vessels in the homes, it was not pasteurized and was produced in rural conditions far from sanitary.

Read before the Richmond Academy of Medicine, October 25, 1960.

Most of the homes of that time were not screened in the summer, few of them had central heating or electric lighting, refrigeration was by ice and quite inadequate by modern standards both in food stores and in homes. Public transportation consisted of horsedrawn and electric street cars and private vehicles were owned only by the relatively wealthy people. Disposal of sewerage was in general adequate but there were many open privies in the poorer sections of the city.

Medical conditions were quite different from those of today. Food borne infections particularly by water and milk were frequent in the summer. Typhoid fever and intestinal infections were epidemic. Malaria was prevalent in the eastern part of the State. Nutritional and degenerative diseases were frequent.

The armament of the doctor to combat these diseases was quite limited. Lacking diagnostic accessories such as laboratories and x-ray, he was by necessity a much keener observer than we are today. The only specific drugs were those used against infestations from the animal kingdom such as quinine for malaria, mercury for syphilis, and a variety of drugs for intestinal parasites. The only potent vaccine was against smallpox and passive immunity was induced by sera only against tetanus and diphtheria. There were practically no potent extracts from the glands of internal secretions.

In this story of the Academy I will attempt to tell you of individuals and institutions rather than record technical details such as changes in the constitution and bylaws. The name of the organization at the turn of the century was "The Richmond Academy of Medicine and Surgery". Later the word *Surgery* was cut off. I trust this change was a recognition of surgeons

as real medical men rather than dropping them as mechanics.

Personnel

At the beginning of this century there were few specialists who dealt in a limited field. Practically all of the surgeons worked to some extent in medicine and obstetrics, many of the medical men did surgery and obstetrics. The primitive nature of laboratory and x-ray work has been noted. There were about 100 members of the Academy and that has gradually increased to 650 today. There have been many distinguished men in our organization, it would be impossible in this brief history to acquaint you with all of them, I will, therefore, select from them those who have been president and others who have played a major role in the medical colleges.

The President in 1900 was Dr. William Tell Oppenhimer. He was a most delightful and entertaining man as well as a successful practitioner of medicine and surgery. For many years he was Chief-Surgeon of the C. & O. Railway and was the most important individual in the development of the hospital system of the C. & O. He was a raconteur of note, his famous stories as well remembered by the older members here and he was a most popular toastmaster.

Dr. Stuart McGuire was President in 1901. His great distinction as a surgeon is well known to most of you. He was President and Professor of Surgery in the new college, as the University College of Medicine was known. When the two schools were united in 1913, he became Professor of Surgery in the combined institution. He later served as President of the Medical College of Virginia and was on the Board of Visitors for many years. In addition to his outstanding ability as a surgeon and teacher he was always most generous in financial aid to what was then a struggling institution.

At the turn of the century he and his father, the famous Dr. Hunter Holmes McGuire, built the present St Luke's Hospital to replace the old one on 12th Street. His father died about the time the hospital was opened, so Dr. Stuart took charge and later made several additions to take care of his large practice. In World War I he closed his hospital and organized Base Hospital #45 which he commanded. He presented many important contributions to the Academy and other medical societies. His invaluable work in the building of the Academy's home will be mentioned later.

Dr. George Ben Johnston was President in 1904. He was a most distinguished surgeon and was Professor of Surgery in the Old School as the Medical College of Virginia was known and continued after the consolidation. Dr. Johnston and his associate Dr. Murat Willis established the Johnston-Willis Hospital at 6th and Franklin Streets. He was a great teacher and developer of young men, many of our present members were trained and encouraged by him. It should be noted that the rivalry between him and Dr. Hunter McGuire was responsible for the founding of the University College of Medicine in 1893. The rivalry continued between the supporters of the two schools and it created at times very hard feelings among both factions. This fortunately has gradually disappeared since the union of the two schools.

Dr. Ramon D. Garcin was President in 1906. His long life which recently ended at 93 years, is known to most of us. In addition to his large family practice, he was one of our most public spirited members. He did outstanding work on the School Board and Library Board and was for many years the physician to the Masonic Home for Boys. Here he not only attended to their physical ailments but also had great influence in developing these boys into good and useful citizens.

Dr. Ennion G. Williams was President in 1907. To the State of Virginia he was perhaps the most useful doctor of this period. From the start of his practice he was interested in communicable diseases. He brought to Richmond the first x-ray machine. His great desire was to prevent disease so it was

natural that he was appointed as the first Health Commissioner for the State in 1908 and he held this position until his death. His work in this department was outstanding and of inestimable value to the state in the development of sanitary conditions and laws, and the building of hospitals for treatment of tuberculosis.

Dr. Alfred L. Gray was President in 1912. He was the pioneer roentgenologist in the State and did outstanding work in the development of this branch of medicine. He was Professor of Roentgenology and for some years Dean in the Medical College of Virginia. He had such a great sense of fair play that his opinions were respected by every one so that he was acceptable to every faction as a mediator of disputes.

Dr. J. Shelton Horsley was President in 1913. He was an indefatigable worker, his many contributions to the literature were climaxed by publication of his textbook on Surgery. He founded St. Elizabeth's Hospital to take care of his large surgical practice. In addition he was the pioneer research surgeon in Richmond. He was always interested in malignant disease and many of his contributions dealt with tumors of this nature in various organs.

Dr. Thomas W. Murrell was President in 1918. He is the dean of Dermatologists in Richmond. He is well known to all of you for his outstanding work, his delightful writings and his good company.

Dr. A. Murat Willis was President in 1926. He was Professor of Surgery in the Medical College of Virginia, co-founder with Dr. Johnston of Johnston-Willis Hospital, an outstanding clinician and teacher, and a very delightful gentleman.

Dr. James H. Smith was President in 1928. He was a profound student, a sound and beloved clinician and author of outstanding contributions particularly in the field of metabolism. His work for the Academy in the acquisition of the Miller Library will be noted elsewhere.

Dr. Wyndham B. Blanton was President in 1929. He was one of our most distinguished members of this period. He was a sound clinician always thorough in his work. He was very interested in allergic conditions and developed the Allergy Clinic at the Medical College of Virginia. His interests outside of medicine were many but particularly in history. His "History of Medicine in Virginia" is a monumental work. In addition he published many other articles and books on historical subjects. He was a very important member of the Virginia Historical Society and did great work in restoration of houses on Church Hill. He was largely instrumental in forming the Historical Section of the Academy.

Dr. J. Morrison Hutcheson was President in 1931. Again he is well known to you. He is one of the pioneer internists in Richmond. He has been greatly interested in the American Medical Association and the American College of Physicians, and has held high offices in both organizations.

Dr. Joseph F. Geisinger was President in 1934. He was one of the first complete Urologists in Richmond. During and after his presidency he was the leading figure in the organization of the Hospital Service Association.

Dr. Austin I. Dodson was President in 1938. He was Professor of Urology in the Medical College of Virginia, a distinguished surgeon, and author of many scientific papers and two textbooks on Urology. The Bulletin of the Academy was initiated in 1933 and Dr. Dodson was Editor for a number of years. This publication was discontinued during World War II.

Dr. William B. Porter was President in 1941. He was the first full time Professor of Medicine at the Medical College. He was an astute diagnostician and an outstanding teacher. He and Dr. Bigger reorganized the teaching at the College and both played a large part in the great development of the College.

Dr. Isaac A. Bigger was President in 1946. He was the first full time Professor of Surgery. He was one of the pioneers in the development of Thoracic Surgery. He was

a great surgeon and teacher. He published many important surgical papers and was co-author in two editions of Horsley and Bigger's Surgery.

At the Medical College all of the clinical departments were staffed by local academy members on a part-time volunteer basis until the appointment of Dr. Porter and Dr. Bigger. The list of those who made important contributions to teaching is too long to record here. Mr. Manfred Call did outstanding work as Dean of the School of Medicine for many years.

Dr. Douglas VanderHoof was Professor of Medicine. He did great work as a teacher and much to establish routine thorough physical and laboratory examinations here.

Dr. Paul LaRoque held the Professorship of Surgery from Dr. Willis' death to the appointment of Dr. Bigger. He was a profound student and excellent teacher. He was Librarian of the Academy in the early days and helped lay the foundation of what we have today.

Mark W. Peyser was assistant Secretary in 1892 and Secretary from 1894 until his death in 1932. He served the Academy with devotion and zeal, he was the most important member during that period of 40 years. His minutes of the meetings were recorded meticulously and in considerable detail. In the early years they were written in long hand clearly and, I am sure, accurately giving the discussions in the meetings. Some of these transactions will be noted later.

Dr. Emily Runyon graduated at Northwestern Medical School in 1888 and practiced with distinction in Richmond for many years. She sought membership in the Academy but was not eligible on account of the word "male" in the constitution. As the Civil Rights of women approached those of men, this word was removed from the constitution and Dr. Runyon became the first female member of the Academy.

Meeting Places

The Academy had no permanent home until our building here was opened in 1932. In the early years it met in the hall of the Travelers Protective Association, in the University Club and in the Jefferson Hotel. In 1925 the Atlantic Life Insurance Company invited the Academy to use its auditorium at 6th and Main Streets. This generous offer at no rental fee was accepted and the meetings were held there until 1932.

There were discussions of a home and housing for the library from the earliest days of this century. Apparently a considerable number of books had been accumulated, for in 1903 the State Librarian wrote the Academy stating that its "books occupied space imperatively needed for the Library proper and I must again ask that these works be removed". About this time a letter from the TPA gave permission for storage of three cases of books so they must have been the same offending volumes.

Dr. Paul LaRoque was elected Librarian in 1908 and was requested to keep the Academy's library in his office.

Apparently the first definite action on a permanent home was taken in 1906 when a Committee on a Meeting Hall was appointed and $4000 in subscriptions from members was sought. In 1907 it was reported that $1050 had been pledged by 21 members. In 1909 Dr. Stuart McGuire was appointed Chairman of the Building Committee, he reported later in the year that the cost of suitable houses was too great so the project was abandoned.

In 1910 the top floor of the Professional Building was offered to the Academy at rental of $100 a month, this was considered too expensive, so the Academy continued to meet at the T.P.A. for $10 a month.

In 1916 there was new discussion of a home for the Academy, the offer of the Professional Building was again considered and declined. In 1922 a similar decision was made for the Medical Arts Building. In 1923 another committee on Permanent Home considered a building lot on Franklin Street opposite St. James Church but the

next year this was abandoned on account of lack of funds.

In 1925 the Medical College and the Atlantic Life Insurance offered their facilities and, as noted above, the latter invitation was accepted.

This brings us to the thrilling period when the Academy "rose on stepping stones of their dead selves to higher things" and built our magnificent home.

The history of the Miller Library and the home of the Academy has never been adequately recorded, it can be given here in brief outline only but it would be well for the Academy to publish in detail the story of this great collection accumulated by Dr. Miller and the accomplishment of the Academy's dream of a permanent home.

Dr. Joseph L. Miller was a native Virginian. From his youth he was interested in collecting old books. He studied medicine here in Richmond and naturally the books he then collected became those related to medicine. Throughout his medical life he practiced in Thomas, West Virginia. He continued his collection and expanded it into securing old essays and theses, instruments, pictures, engravings, cartoons and silhouettes. As his financial position improved he purchased articles of more value until it reached the magnificent collection which we have here today.

Dr. Miller kept in close touch with rare book dealers not only in this country but also in England and in Europe. These people knew what he wanted and would often notify him that they had so and so. The many first editions, such as *Harvey's Circulation of the Blood,* are priceless. The collection of silhouettes of medical men exceeds the collection in the Army Medical Library. Very interesting is a group of cartoons in color of French doctors of the 19th century. Another is a collection of essays and theses of American, particularly Southern, medical students while in school both in this country and abroad. Dr. Miller valued this library at $10,000, this would be the understatement of the year for it is certainly worth many times that amount.

Dr. Miller had decided to leave this library to the American College of Surgeons and if not desired by them to the Yale University Library. His will had been executed to this effect.

In the early '20's Dr. Miller gave further thought to the ultimate disposition of his library and decided that, located in his home, it was subject to many hazards particularly fire. His reflections evidently led him to Richmond and he decided that it should be there provided a proper home could be found or provided for it. He apparently first consulted Mr. Wm. G. Stanard who was at the time the Corresponding Secretary and Librarian of the Virginia Historical Society, this gentleman evidently decided that some medical body should have the custody of this unique collection. He therefore consulted his close friend, Dr. James H. Smith, concerning it. Dr. Smith was a wise and clear thinker, he soon envisioned the Academy to be the proper organization to have the library and the library to be the stimulus to the Academy to build its home. Dr. Miller came to Richmond, met Dr. Smith, described his collection and invited him to visit his home to inspect it. Dr. Smith did this and returned to Richmond full of enthusiasm for his plan. The Board of Trustees at this time consisted of Drs. Thomas D. Jones, Chairman, James K. Hall, J. Allison Hodges, Fred M. Hodges and Claude C. Coleman. At a special meeting of this Board on October 8, 1925, called at the request of Dr. Smith, he said that he assumed, first it is the general opinion of the members that the Academy should have its own home, second that this is possible, and third that it can be done now. He then related his talks with Dr. Miller, told of his visit to his home and described the library. Dr. James K. Hall had also talked to Dr. Miller and both he and Dr. Smith were convinced that Dr. Miller desired to change his will leaving the collection to the Academy provided it would be properly housed and preserved. They also

thought that Dr. Miller would give the collection to the Academy during his life time should the home be built.

There followed for more than a year discussions in the Board, in the Academy and with Dr. Miller. The location of the building was a difficult problem, as it was to become with the Richmond Memorial Hospital twenty odd years later. This time it was happily solved by association with the Medical College whereby the College would build its library in connection with the Academy's building and furnish many facilities at a most moderate cost to the Academy. Dr. William T. Sanger, the President of the College, played a most important part in the negotiations with the College. He secured the option on the lot at 12th and Clay Streets which was finally purchased by the two organizations; the Academy's part amounted to $8533.99.

On May 24, 1926, Dr. Smith reported to the Board that Dr. Miller had changed his will making the Academy the beneficiary of his library "in the event I have not transferred these books, prints, etc. into keeping of the Academy prior to my death." The President appointed a committee with Dr. Smith as Chairman "to acknowledge the courtesy of Dr. Miller and extend to him thanks for the interest he has shown in the Academy and appreciation of the loyalty he has manifested to the State of his birth, the City of Richmond, and his Alma Mater." This same committee was to be a permanent one to continue relations with Dr. Miller.

On January 25, 1927, the Board formally accepted Dr. Miller's gift and entered into a contract with the College for the purchase of the land and construction of the two buildings. At this time the Finance Committee was appointed as follows: Dr. James K. Hall, Chairman, Drs. James H. Smith, Wyndham B. Blanton, Stuart McGuire, J. Shelton Horsley, Charles R. Robins, Robert S. Bryan, J. Morrison Hutcheson, Meriwether L. Anderson, and Fred M. Hodges. A subcommittee of this group was appointed as the Building Committee.

On May 23, 1927, it was reported that $43,000 had been subscribed so the Academy authorized the committee to proceed with the Building. With this large and expensive undertaking before it, the Academy decided that it should become a Corporation. This was accomplished with the legal services of Mr. A. Russell Bowles, Jr. who gave this time and effort to the Academy without charge. The transfer of all funds of the Academy in excess of $1000 were transferred to the Building Fund.

Dr. Stuart McGuire succeeded Dr. Hall as Chairman of the Finance Committee and reported on October 25, 1927, that $50,000 had been subscribed, the cost was estimated at $100,000 and the deficit could be financed by mortgage bonds. On January 8, 1929, the dues were raised to $25 a year to take care of the bonds to be issued. On September 25, 1931, the contract for the erection of the building was let to Doyle and Russell for $64,450.13. One month later Dr. Miller executed a deed to the Academy for the library to be delivered when the home was completed.

The building was ready for occupancy in about a year and the formal opening was held on September 20, 1932, with dinner and later distinguished speakers.

The result of this great undertaking is commonplace now but we should realize that the leadership of that small group of men supported by the whole membership of the Academy has given to us a home of elegance and comfort, and Dr. Miller provided a unique and splendid collection which can always be enjoyed.

Hospitals

At the turn of the century there were five hospitals in Richmond, the Virginia Hospital associated with the University College of Medicine, the Old Dominion Hospital associated with the Medical College of Virginia, the Retreat for the Sick, the Sheltering Arms, and St. Luke's. The Sheltering Arms is the only one remaining on its original location. The Virginia and Old

Dominion have been destroyed, the Retreat and St. Luke's were moved to new buildings.

Since 1900 all of our other hospitals have been built. St. Luke's Hospital was the private institution of Dr. Hunter McGuire and following his example our private hospital system was developed. These hospitals were inadequate to accommodate the patients of the growing profession and population. The relative poverty resulting from the War Between the States prevented the acquisition of public and private funds needed for the development of the public general hospitals. It therefore seemed necessary to those with large numbers of patients to provide the necessary facilities themselves. The first hospital construction was St. Luke's at Harrison and Grace Streets. Dr. Hunter McGuire, the founder, became ill and died before the hospital was in operation in 1900. Dr. Stuart McGuire added rooms and facilities to the hospital several times during his active life.

The Sheltering Arms Hospital is one of Richmond's most cherished institutions. It has never required a patient to pay for its services. Since 1900 it has added much equipment to improve diagnosis and patient care and in 1941 the new wing was built.

The Hospitals of the Medical College of Virginia

The Memorial Hospital was opened for patients in 1903. It was built as a memorial to Charlotte R. Williams and while associated with the Medical College it was operated by its Board until 1913 when it was given to the consolidated medical schools. When it was opened, the Old Dominion Hospital was closed and in 1913 when the schools were consolidated the Virginia Hospital was used for other purposes.

St. Philip and Dooley Hospitals were opened for patients in 1920, Dooley has recently been used for other functions. The splendid MCV Hospital was opened in 1940. The cost of this great building and equipment was about two and a half million dollars, a small fraction of what it would cost today.

The members of the Academy have played a major role in the care of patients and teaching in these hospitals.

The Retreat for the Sick moved from its building at 12th and Marshall Streets into its modern home on Grove Avenue in 1920. This hospital has always been part for charity and part for private patients. For many years it was the only hospital for private patients in the city open to members of the Academy who had no connection with the Medical College or with a private institution. It has therefore played a most important part in care of patients and in the development of young physicians and surgeons.

The Johnston-Willis Hospital was founded in 1909 and located at 6th and Franklin Streets where it was operated until 1924 when its new building was completed on Kensington Avenue. This hospital was considerably enlarged in 1949.

St. Elizabeth's Hospital was built by Dr. J. Shelton Horsley for his private patients and opened in 1912. An addition was built in 1920 and another is now under construction. The staff has been enlarged as the hospital was increased in size.

Grace Hospital was built by Dr. Robert C. Bryan and Dr. Stuart MacLean, opened in 1912 and operated by them until 1928 when it was sold to a group of doctors headed by Dr. A. L. Herring. An addition to the original hospital was built in 1931.

Stuart Circle Hospital was organized and built by a group of seven doctors and was opened for patients in 1913. Since this time the staff and hospital have been enlarged to its present condition.

The hospitals recorded are all in the class of General Hospitals. There have also been built three hospitals for treatment of special diseases.

In 1911 Dr. J. K. Hall and Dr. Paul V. Anderson established at Westbrook the first private hospital in Virginia for the treatment of nervous and mental diseases.

In 1912 Dr. Beverly R. Tucker opened a similar institution at 102 East Grace Street. This building was soon found inadequate so Dr. Tucker acquired a large residence at 212 West Franklin Street and built in connection with it the present hospital buildings.

The Richmond Eye, Ear, Nose and Throat Hospital was conceived by Mrs. Stephen T. Beveridge and she left in her will a large sum of money for the establishment of a hospital for treatment of diseases of the eye. She named the Board of Directors to serve the hospital. Two great problems confronted this Board. First the amount of money was not adequate and second they felt that the hospital could not be operated for diseases of the eye alone. The first was solved by additional gifts from Mr. and Mrs. Adolph D. Williams and a grant under the Hill-Burton Act. The second was overcome by judgment of the Chancery Court that it could be used for patients in the allied specialty of Ear, Nose and Throat.

The story of the Richmond Memorial Hospital is a thrilling one in which the Academy as a whole played a large and important part. To record all of the work done by members of the Academy would require a long communication; it is only possible here to note the high lights of this undertaking which was consummated in this wonderful institution. It should be recorded that the committee headed by Dr. Henry Decker worked long and hard and deserves much credit for the result.

Following World War II Richmond studied the idea of a suitable memorial to her sons and daughters who had lost their lives in the conflict. About this time the Richmond Community Council and the Academy's Advisory Committee authorized and received the Buerke report. In this it was emphasized that there was urgent need for the addition of 500 hospital beds to those available. It was logical that a hospital be built as the War Memorial and the community received the idea with enthusiasm. A Board of Citizens was appointed and their splendid work is known to all of you. The presidents of the Board during the formative stages were Theodore F. Adams, Walter S. Robertson and Robert E. Henley. The leadership of these three men played a large part in the success of the undertaking. There were, of course, many points of disagreement. Perhaps the major one was the selection of the location of the hospital. Many members of the Academy felt that it should be placed in the area of the Medical College of Virginia in order that its facilities be incorporated into the large medical center. The majority, however, felt that complete independence was necessary. The gift of Laburnum was probably a deciding factor in locating the hospital on this magnificent site. The necessary money supplemented by Federal and State grants was raised and this splendid hospital was opened for patients in 1957. The value of this hospital to patients and physicians has already been inestimable and will remain so for many years.

The Academy and the Cost of Medical Care

At the turn of the century the cost of medical care did not appear to be a problem for serious consideration. Doctor's fees were small, bills were rendered at long intervals and the public was indifferent to payment as, strangely enough, was the doctor to collection. Dr. W. T. Oppenhimer told the story of a call to the home of a prominent friend to examine his cook who had taken to bed and refused to get up. Dr. Oppenhimer examined her, could find nothing wrong and asked "What is keeping you in bed girl?" She replied, "Doctor they don't pay my wages and I stay here until they do." He replied "Move over girl, let me in, they don't pay me either!"

The Family Doctor took care of all sorts of ailments, delivered the babies and did most of the surgical procedures. I recall a personal incident about this time. An abscess developed in my neck, the doctor was called and decided on incision and drainage,

he took a scalpel from his bag, sharpened it on the side of his boot and without further ado cut my throat. He was not bothered by sterilization, in fact many of the older men were not convinced of the accuracy of the germ theory.

The public was suspicious of hospitalization, mortality rates were high and most people preferred to be treated at home where they were cared for by the women of the family. Most medical and obstetrical cases were treated at home and many surgical procedures were also done there. Hospital cost was ridiculously low; as late as 1913 the average rate here was from $2.25 to $5.00 a day for room, board and nursing, and it was increased very little during the next twenty years.

After the great financial crash in 1929 the cost of medical care seems to have become oppressive and studies were carried on in many parts of the country resulting in voluminous reports from societies, foundations, medical societies and individuals. The Academy kept abreast of the times through its committee on Medical Economics. There was a great deal of discussion and considerable disagreement on what could be done to help defray the Cost of Medical Care.

The cost of hospitalization everywhere received the first attention. Group plans were formed and operated in many parts of the country; the best of these seemed to be the Blue Cross. The Academy looked with favor to this idea so in 1934 appointed a committee to organize such a plan. Dr. Joseph F. Geisinger was chairman of this committee. Associated with the Academy in this work were Murray M. McGuire, Attorney, Charles A. Taylor, Actuary, and A. M. Pullen & Company, Auditors, all of them served without charge. The Virginia Hospital Service Association was thus formed. All except one of the hospitals in the city participated from the beginning of this organization and the one exception joined after about a year. Thomas C. Boushall was the first president and has continued to be a valuable member of the governing board. The Association received its charter and began operation in 1935. The success of the Blue Cross in Richmond will be an enduring monument to many citizens who have worked for it over the years. Particular recognition, however, should be given to the organizers mentioned above. The expansion of this Blue Cross group, its financial difficulties due to inflation, and its present struggle to overcome them are all well known to you. Its service to the community and to the medical profession has been great. It should be nurtured and protected by the Academy. Much of its trouble is due to unnecessary hospitalization and this the doctor can control. I am afraid that many of us are to blame here.

The Academy next turned its thought to the bills for medical care and in 1936 organized the Medical Service Bureau. This organization was planned to review bills a patient might have, consider his financial condition, and recommend reductions if circumstances justified it. The life of this Bureau was short, the volume of accounts was too small for it to make a living and it was closed. The Academy, however, never lost sight of this need and cooperated with the Blue Cross and The Medical Society of Virginia in organizing the Virginia Medical Service Association or Blue Shield. During the period of organization of all these associations the Academy loaned money for expenses; it was all returned except that put in the Medical Service Bureau.

Programs and Meetings

There were about 100 members of the Academy in 1900, there are 650 in 1960. The attendance at meetings over the years has been about the same poor average of 20-25% of members. It is probably less than that today. The most elaborate program of the early days was "continuous discussions on the diseases of the Liver and Gall Bladder and the Kidneys". This began on February 12, 1901, and ended June 25, 1901. It included Anatomy, Physiology,

Pathology, Symptoms, Medical Treatment and Surgical Treatment. The subdivisions would not be more inclusive today though many of the facts could be greatly expanded.

Dr. Peyser, the secretary, recorded very complete minutes of the meetings. They contained good abstracts of the papers and discussions. The titles of the papers are of interest, Constipation—report of patient who had no movement for five weeks, the value of guiacol, treatment of Brights disease, cure of gall stones with olive-oil, use of diphtheria antitoxin, purification of water supply, use of sphygmomanometer, pellagra, typhoid fever carriers, and many others. There were many discussions of the poor attendance then as it has continued to the present. In the early 30's it was thought that the numerous staff meetings at the individual hospitals had a great deal to do with this; the doctors simply did not have the time to attend so many meetings. The hospitals were persuaded to combine their scientific meetings and present their programs at a clinical meeting of the Academy on the third Tuesdays. With the hospital staffs taking these meetings in turn it appeared very successful, but after a year the hospitals decided that their friends were more adequately entertained in their own quarters so these meetings were abandoned. These demands on the doctor's time have increased with the years and it might be time to consider revival of this idea.

Another plan, which has continued, was a social period with refreshments after the meetings. While the attendance remained the same this gathering has unquestionably been of value to the Academy.

About this time the Section on History was formed and has grown into a valuable function. The local special groups in Pediatrics, Urology and Eye, Ear, Nose and Throat agreed to become Sections of the Academy. These relationships did not flourish and there now appears to be no official connection with these groups.

The Bulletin of the Academy was first published in March 1933 and continued as a quarterly for some years. Dr. Austin I. Dodson was editor and the publication was a very creditable one. Dr. Kinloch Nelson, who later became editor, contributed an interesting review of current medical problems. The Medical College and the State Health Department each had a column. With the Second World War, the Bulletin was discontinued and it has not been revived.

Ethics

In the earlier years the doctors seem to have been more sensitive to criticism and more punctilious about relations in the profession. On the other hand a number of indiscreet incidents are recorded and charges made against the offenders. The President of the Academy on one occasion visited a nearby town and inserted in the newspaper a notice that he would be available for treating cases in his specialty of Eye, Ear, Nose and Throat at a certain place. He was tried before the Judiciary Committee and severely censored, but no other punishment was given.

An amusing incident was recorded where a member charged the Secretary with insulting him. He then refused to come to the hearing by the Judiciary Committee because he feared physical assault by members of the committee.

There was for some years a quack Cancer Hospital in Richmond which advertised the names of some well known members of the Academy as consultants; they were promptly censored and at once severed their connection with the institution.

There were a number of charges made of one doctor treating a patient of another. The factional division of the two medical schools was probably responsible for many of these disputes.

When Salvarsan came into use an advertisement appeared in the Richmond papers from a New York Company which for $30 would furnish the medicine and give the name of a local doctor to administer it. The

Academy was never able to find the name of that physician.

Discussion was held many times on the subject of Contract Practice. No satisfactory solution of this problem was found as indeed is still the situation today.

The Academy and the Medical Colleges

The Medical College of Virginia known as the Old School and the University College of Medicine known as the New School were both operating successfully in the early years of the Century. They were called proprietary schools because they were operated by a group of doctors without connection with other institutions. Except for a few full time professors in the preclinical courses, the faculty was entirely volunteer. The executive officers were largely members of the clinical faculty. The cost of operation was insignificant compared to what it is today. M.C.V. had for years received a small appropriation from the State, the officers of the New School were quite jealous of this and before a Legislative Committee testified that the appropriation was not justified because a medical school could operate on its own income. They were not successful, the appropriation continued, mounting later to the large amounts appropriated by the State today.

As medical education increased in complexity and expense, the schools each realized that a great deal of help was needed so the two factions put aside their personal differences and consolidated the schools into the Medical College of Virginia in 1913. The State of Virginia was thus sponsoring two medical schools and there was pressure to consolidate them into one.

I was in the medical school at the University at the time and thought I would transfer to Richmond primarily for financial reasons, but on the assurance of Dr. Whitehead the Dean that in about another year the schools would be consolidated with the clinical years in Richmond, I stayed in Charlottesville.

The joint committees of the two schools agreed on consolidation without difficulty, then came the question of location. This opened the flood gates of discussion and disagreement which resulted in a bitter and prolonged fight in the Legislature. Both sides were so strong that a stalemate was inevitable, the idea was abandoned by M.C.V. became recognized as a State institution and has enjoyed more adequate support since.

The Academy and the Wars

The war with Spain had just been concluded when the 20th Century began. It was thought that an indefinite period of peace and prosperity was ahead of us. Perhaps the most important medical advance resulting from this war was the development of typhoid vaccine. Along with improved public health measures this vaccine has practically eliminated this disease. The dream of peace was short lived, however, and was shattered by the onset of World War I in 1914. Doctors were recruited for the Medical Reserve Corps of the Army and Navy. The incidents on the Mexican border were so soon overshadowed that only a passing thought is necessary. When we entered the conflict in 1917, these preliminary efforts were greatly multiplied. About 20% of the Academy's membership entered the service. All served well and returned home with honors. The largest organization of the local doctors was in Base Hospital #45, sponsored by the Red Cross and the Medical College, but organized and almost entirely staffed by members of the Academy. This unit, as did its successor later, had distinguished service. The history of each has been published in a large and handsome volume. At home the great epidemic of influenza struck civilian and military population alike. Emergency hospitals were organized. The most important one was located in the John Marshall High School and there, as elsewhere the profession, the Red Cross and many volunteer civilians worked

with tireless energy on the many victims of this disease.

With the onset of World War II history repeated itself except that the preparation before hostilities was more complete. The 45th General Hospital was well organized before our involvement in the war, much more Red Cross activity and personnel were available, and recruitment of doctors was more active. Approximately the same percentage of doctors volunteered and again we can be proud of their record.

During both wars the members of the Academy made strenuous efforts to protect the interests of its members in the military services. A percentage of their incomes was voluntarily contributed by the physicians remaining at home to be used for the benefit of those who had volunteered. At the conclusion of hostilities the Academy urged the public to return to their patriotic physician. This was done by newspaper advertisements, talks to large groups and talks on radio programs. Very little of the money was actually used and both collections later were given to the Building Fund.

Today, the Academy is a sound organization; it is free of debt, our splendid building has every necessary facility for its activities, and it contains one of the most unusual collections of old books, instruments, and prints in this country.

The old problems are still with us and new ones are thrust upon us steadily by our generous government, but with the support of its members these problems will be overcome as they have been in the past.

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The Best Drugs Are Yet to Come

There is no question that in the United States, it has been the pharmaceutical companies who have done the major research work in the discovery and the initial testing of the drugs we call the tranquilizers. I think we owe a great debt of gratitude to these companies for this research job. I have the impression that when this whole new concept of the treatment of mental illness by drugs was begun, had the control of it, and particularly the "efficacy" of these drugs been a matter of jurisdiction by the federal government, my guess is we would not have had them. I think it was the competitive research activities among the drug houses that led to these—and fortunately for all of us in this field, still continues. My conviction is that the best of the drugs is probably yet to come, and the chances are good that it will come out of the research, the competitive research if you will, among the drug houses.—William C. Menninger, M.D., The Menninger Foundation, to Senate Subcommittee on Antitrust and Monopoly.

Fatal Acute Pancreatitis
A Survey

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Acute pancreatitis is a dread disease under any condition but especially after surgery. Although little can be done once pancreatitis develops, both the surgeon and the candidate for upper abdominal surgery should be aware of the possibility of this post-operative complication.

ACUTE HEMORRHAGIC necrotizing pancreatitis is a fulminate and particularly overwhelming disease. It is usually fatal, and disturbs the confidence of the attending physician to watch virtually hopelessly the inexorable pattern and progression of this enigmatic process originating in an organ cannibalistically intent upon self-destruction. Especially is this applicable in those unfortunate surgical situations in which the disease swoops down suddenly, unexpectedly, and furiously upon the post-operative patient and his surgeon, the antecedent operation usually having been uneventful and routine. Indeed, unless a surgeon has watched this tragic surgical sequela pursue its rapid course with deterioration of his patient it is impossible to envisage the violence of this particular and usually lethal complication. Surprisingly, many experienced surgeons have not observed it, or if so, have attributed the demise of their patient to some other violent post-operative abdominal catastrophe. After he has engaged for some days in this mortal conflict he picks himself up, bruised and bleeding as it were, and attempts to go on from there. His patient is usually dead, and the conscientious surgeon carefully scrutinizing the course of the case as he always must when disaster occurs in the immediate post-operative period can find no evidence of surgical negligence, of poor judgment, or of technical error. The family of the deceased exhibit profound consternation, confusion, and misapprehension, not being aware of, or forewarned of this potential deadly complication. Indeed, they can accept the more frequent, but less uniformly fatal conditions of coronary occlusion, pulmonary embolism, and even peritonitis or hemorrhage, with greater equanimity. Francis Moore in his excellent work "The Metabolic Care of the Surgical Patient"[24] has aptly stated that "therapy has often been reviewed but never improved, and the mortality remains unique among post-operative complications, almost 100 percent, and higher than that of pulmonary embolism, coronary occlusion, or bacteremia."

Having personally wrestled unsuccessfully with three of these frightful problems over a ten-year period the indelible marks have been left. It was, therefore, felt worthwhile to remind our colleagues of this possibility as suggested by Brown who felt that surgeons in general should be periodically warned of this potential danger.[3] Those surgeons who have watched a fatal issue ensue in a patient who was well on admission for a relatively routine procedure need

Presented before the Virginia Surgical Society at Williamsburg, May 1961.

no reminder, and eternally have a high index of suspicion for this fortunately infrequent hazard.

A survey of *fatal* acute pancreatitis over a ten-year period proven by operation, autopsy, or both was carried out, the records of the three major civilian hospitals of Norfolk having been reviewed by three of our local surgical residents and myself. Many records had to be discarded as having inadequate information or for lack of absolute proof of the disease. In the latter category were many, many cases of typical *clinical* pancreatitis but which never came to operation or necropsy. Some, of course, recovered but as we were particularly interested in those having had immediate preceding surgery, and since these are habitually difficult to diagnose, a strict limitation to proven cases seemed mandatory. Selection of cases purely on the basis of high blood amylase or urine diastase activity has been considered to be increasingly fallacious in view of high levels frequently recorded in other conditions,[13,25] often following uneventful upper abdominal surgery,[15,16,26] and even after simple retrograde T-tube cholangiography.[14,18,19] These facts have been emphasized repeatedly by many authors.[30]

Review of Cases

The records of 23 patients who succumbed from this disease over a ten year period, and who were either operated upon, had autopsy performed, or both, were studied. As Table I shows there were six cases of the post-operative variety, one traumatic, and 16 patients who had a spontaneous onset without antecedent trauma or surgical manipulation. The Bureau of Vital Statistics of the State of Virginia has kindly supplied us with the information that 349 deaths were attributed to acute pancreatitis during the same ten year period. Further, the increased frequency of diagnosis during the past decade is obvious from their figure of 19 annual cases ten years ago and 59 during the past year. Of course, many of these were not proven. In the group under study the youngest fatality was in a child of four years, certainly the most infantile found in the literature, and the oldest 82, the average age being 32.9 years. The mean duration of life after onset of the disease was 10.1 days, the shortest being one day and the longest 49 days.

As emphasized by most writers uniformly abdominal pain invariably characterized as *severe* was the outstanding symptom associated in the majority with nausea and vomiting.[5,6,24,27,28] The striking exceptions, however, were in the post-operative cases where 50 percent showed neither of these symptoms, further confirming the difficulty of diagnosis in those having had recent surgery.

TABLE 1
Proven Cases of Fatal Pancreatitis

Type	Proven by:			Number of Cases
	Operation	Autopsy	Both	
Spontaneous Onset	6	6	4	16
Traumatic (bullet wound)	..	.	1	1
Post-operative	1	5	.	6
	7	11	5	23

In the non-operative group severe abdominal findings were noted, but in those having undergone surgery the abdominal findings were apt to be peculiar, vague, or bizzare. Shock, however, occurred in 19 of the entire group, typically being present early in the disease and in the post-operative group occasionally ushering in the pancreatitis. High temperature exceeding 102 degrees was present in all but four cases. Diabetes, stated by Warren et al[36] to be of ominous significance, was not recognized. Oliguria[29] occasionally progressing to anuria was recorded in only 50 percent but the inadequacy of many of the fluid records does not prohibit this having been more frequent, as it probably was. The incidence of the less frequently observed features of hypocalcemic tetany,[9,12,24] melena, hematemesis, mass, flank discoloration, icterus, and mental confusion are shown in Table II. Diarrhea

mentioned by some writers was observed in only one patient. On the laboratory side the one most constant feature was that of leukocytosis, often profound and exceeding 15,000 in 50 percent of the cases. Amylase determinations were not made in eight cases and were reported as normal in six of the cases where it was performed! In those showing elevation it was exorbitant in only two, one showing an elevation 18 times and another 28 times the normal value in the institution where it was done. Azotemia as evidenced by elevated non-protein nitrogen or blood urea nitrogen determinations was recorded in ten cases but the determinations were not made in all. Diagnosis was made in only eight (34.7 percent) of the 23 cases prior to surgery or autopsy. (Table III) It was established in only two of the six post-operative cases prior to death.

TABLE II

Clinical and Laboratory Data

	Spontaneous Onset (Sixteen)	Traumatic (One)	Post-Operative (Six)	Total (Twenty-three)
Severe pain	16	1	3	20
Nausea—Vomiting	15	1	3	19
Shock	13	1	5	19
Hemoconcentration	7	1	3	11
Diminished urinary output	7	1	5	13
Fever (above 102)	11	1	5	17
Hematemesis and/or melena	6	0	3	9
Acute Surgical abdomen (severe)	10	1	2	13
Diarrhea	1	0	0	1
Icterus	5	0	3	8
Mental changes	3	1	5	9
Mass	1	1	2	4
Skin Discoloration	3	0	2	5
Hypocalcemia	3 (Not done in 13)	0	2 (Not done in 4)	5
Leukocytosis (above 15,000)	11	....	2	13
Elevated amylase	5 (Not done in 4)	1	2 (Not done in 4)	8
Azotemia	7 (Not done in 8)	1	5 (Not done in 1)	13

Etiology

Although the literature is replete with conjecture the etiology of acute pancreatitis including the "trigger mechanism" that initiates this chain of diasaster remains obscure. Since Opie in 1901[4,5,22] first described the "common channel" as a potential source of pancreatitis much has been written about reflux of various material into the pancreas. Elaborate discussion of the etiological possibilities which have been mentioned is outside the scope of this paper. Certainly, the "common channel" theory does not hold in all cases but in some it likely has a role. Many[1,10,12,13,17,20,21,22,23,26,27,28] have emphasized the association of biliary pathology and have cited a high percentage of cases with gallbladder or common duct stone, but in this small series only two of those not being post-operative had significant biliary disease. Alcoholism frequently implicated as a causative factor was noted in only five of the non-operative cases. In many patients a combination of different facets—anatomical, physiological, dietary, traumatic, infectious and vascular operating in various proportion and to different degree must initiate the process.

Post-Operative Pancreatitis

Dunphy et al[8] has characterized the post-operative type as a "tragic and somewhat inexplicable accompaniment of surgical op-

eration". A more amazing unpredictable, or more lethal complication can hardly be imagined! Frieden[11] in his excellent paper has divided the post-operative group into those secondary to procedures involving the upper abdomen, and those remote from any possible direct pancreatic trauma. In those occurring after upper abdominal surgery the etiological possibilities of direct injury to pancreatic tissue, diversion of stagnant duodenal contents into the pancreas, ischemia due to ligation of important blood vessels, spasm or other obstruction of the sphincter, and direct injury or damage to the ductal system has been mentioned by Warren.[31,33,34,35] It is even harder to envisage the cause of onset in those *remote* operations followed by fatal issue, fatalities having

TABLE III

Type	Diagnosis Made Prior to Surgery or Autopsy	Number of Cases
Spontaneous Onset...	6 (37.5%)	16
Traumatic	0	1
Post-operative.....	2 (33.3%)	6
	8 (34.7%)	23

been reported after burns, blood transfusions, thyroidectomy, mastoidectomy, prostatectomy, herniorrhaphy, colostomy, and others. By far, however, the greatest number have followed operations on the biliary apparatus and the stomach, duodenum and pancreas. Interestingly enough, there is little correlation in many instances between the degree of trauma and the onset of the disease.[11,34] Although Doubilet and Mulholland,[7] the greatest exponents of choledochochal sphincterotomy, have not seen it, one is impressed with the great frequency of case reports in which the ampullary area has been traumatized either by sphincterotomy, stretching, or removal of impacted stone.[2,3] Three of our six cases involved the latter. Although not as reluctant to explore the common duct as Beye (quoted by Brown[3]), who in 1936 stated that "the common duct cannot be opened with impunity", this potential hazard cannot be ignored. Indeed, Howard[17] has just again cautioned against indiscriminate common duct exploration. Particularly in a given case the need for specific operation on the ampulla, such as sphincterotomy must be weighed against the possibility of igniting this fatal complication, especially since the results are often problematical as to efficacy. We do not wish to imply that these operations should be abandoned but rather that the surgeon and the patient be forewarned of this grave potentiality when surgical attack on the upper abdomen is contemplated. It cannot be pure coincidence that the majority of fatal post-operative cases follow surgery on the biliary apparatus[32] and the stomach and duodenum.

In the series reviewed by us three cases followed removal of an impacted ampullary stone, two of which were by the transduodenal route. In none, however, was the operation other than routine. Necropsy showed no false passages. One fatality each followed suprapubic prostatectomy, umbilical herniorrhaphy, and gastric resection with biopsy of an unsuspected pancreatic tumor subsequently found to be carcinoma. (Table IV)

The course of the disease and the manifestations vary. The typical case, however, is that of an essentially well, middle-aged patient who enters the hospital in good condition for correction of biliary or gastro-duodenal disease. The procedure is carried out uneventfully, and shortly thereafter in various proportion unexplained vascular collapse ensues followed by oliguria, hemo-concentration, abdominal distention, more than usual abdominal pain, and vague poorly defined discomfort greater than anticipated. If he survives this initial shock-oliguria phase he then over another few days may exhibit tetany, hematemesis, melena, high fever, rapid pulse, flank skin discoloration, and even jaundice and mental confusion. Still surviving, the septic phase then ensues, often being accompanied by the appearance of an upper abdominal mass

TABLE IV

Post-Operative Pancreatitis

Pre-Operative Diagnosis	Age of Patient	Operative Diagnosis	Operative Procedure	Post-Operative Day Symptoms Developed	Amylase Determination	Clinical Diagnosis	Post-Operative Day of Death
R.S.: Non-functioning gallbladder	57	Cholelithiasis Impacted Ampullary stone	Cholecystectomy: C. D. exploration, choledocho-lithotomy	1 (shock)	0	Cerebro Vascular Accident	9
E. J.: Non-functioning gallbladder	52	Cholelithiasis Impacted ampullary stone	Cholecystectomy: C. D. exploration, choledocholithot-omy. (Transduo-denal) (blocked C. D.)	2 (shock)	X8	Initially: coronary thrombosis Later: Pancreatitis	17
C. L.: Non-functioning gallbladder	55	Cholelithiasis Impacted ampullary stone	Cholecystectomy, C. D. exploration: choledocholithot-omy. (Transduo-denal) (blocked C. D.)	1 (shock)	X4	Pancreatitis	13
P. B.: Prostatic Hypertrophy	74	Prostatic Hypertrophy	Suprapubic Prostatectomy	3 (abd. dis-tention and oliguria)	0	Acute Renal shut down	13
E. F.: Rup-tured umbil-ical hernia	34	Ruptured Um-bilical hernia following vag-inal deliv ery	Unbilical Herniorrhaphy	14 (abdomi-nal pain)	0	Unknown	17
W. N.: Duode-nal Ulcer	33	Duodenal Ulcer Cystic Pancre-atic Tumor	Gastric resection (Billroth II) Bi-opsy of Pancreatic Tumor	8 (abd. pain distention: disorienta-tion)	0	Peritonitis	12

representing the accumulation of pancreatic debris and blood, and occasionally associated with profound anemia. Death from sepsis then almost invariably follows. In this series, obviously treatment, even including newer modalities[4,5,16,18,20,24,28] was not effective.

Conclusion

Twenty-three cases of fatal acute pancreatitis have been reviewed. Special emphasis has centered on the six in this group representing a lethal post-operative complication. Attention has been called to the possibility of this development in any post-operative case but particularly after biliary, gastro-duodenal, and pancreatic surgery. The surgeon must be alerted to this rare but vicious complication.

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"Protecting" the Consumer

Mr. Kennedy wants Federal bureaucrats to have power to forbid the sale, not merely of unsafe drugs, but of drugs that *they* decide are "ineffective" or "worthless". This would not only ruin firms, but prevent the very clinical experience by which the relative merits of new drugs must be tested. Is this "protecting" the consumer? And would the principle be extended to allow bureaucrats to forbid the sale of "ineffective" or "worthless" paintings, newspapers, magazines, or books? —Henry Hazlitt in *Newsweek,* April 2, 1962.

Tumors of the Head and Neck Region

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Much can be done for patients with tumors in the head and neck region by early and accurate diagnosis and modern therapeutic methods.

THIS PAPER will deal with the etiology, diagnosis and management of common tumors arising in the head and neck, a region popularly designated to exclude the cranial contents and spinal cord. Due to the close proximity in small volume of vital and ancillary structures, widely varied clinical settings occur in these mucosal-lined passages and adjacent soft parts. The main objective of this presentation will be the demonstration of methods of early diagnosis based on recognition of symptoms and signs of head and neck neoplasms, their natural history and a complete knowledge of regional anatomy. Through these facts and a discussion of modern therapeutic methods and results, it is hoped that undue pessimism and uncertainty about the nature of these neoplasms will be dispelled.

Etiology

Much has been written concerning the cause of cancer involving head and neck mucosa but, until recently, few facts had been presented on the etiology of extramucosal tumors. Due to accumulating evidence regarding the association between irradiation therapy in benign diseases of infancy and subsequent thyroid cancer,[4] few physicians today advise such treatment unless life threatening circumstances arise.

Tobacco in all its forms has long been one of the factors implicated in oropharyngeal carcinogenesis, while a recent clinical study points up the extremely high incidence of alcoholism in patients with tumors located here.[16] Since the great majority of persons imbibing heavily in alcohol are also smokers with nutritional defects, the differential etiology of cancer production in these instances becomes extremely complex. Scandinavian workers have for many years noted the relationships between dietary deficiencies and the production of laryngopharyngeal cancer, females in these northern lands being affected as often as males.[1] The cause of this strange sex incidence is undoubtedly due in great part to the Plummer-Vinson (or Paterson-Kelly) syndrome of sideropenic dysphagia, quite common in lower economic groups of poor nutritional status. Among the Orientals, nasopharyngeal cancer is commonplace, but no acceptable theory of pathogenesis has been proposed.[10] Chronic irritation from sharp or broken teeth may play a role in oral cancer causation, but the fact remains that many victims of this scourge are edentulous! Similarly dental plate trauma has long been a popular factor in the theories of oral cancer causation, but pre-malignant leukoplakic changes often subside under such devices! Much remains to be learned in this fertile field for cancer epidemiologists.

Pathology

Squamous cell carcinoma is by far the most common cancer type arising in mouth and laryngopharynx, minor salivary gland adenocarcinomas occupying a role of secondary importance. In the lymphoid tissue of Waldeyer's lymphosarcoma may take

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origin, while its primary development within cervical lymph nodes is of equal significance.[2] The nasopharynx harbors both squamous carcinoma and lymphosarcoma, while the radiosensitive "lymphoepithelioma" (actually a squamous carcinoma with abundant lymphoid elements) can be seen in any pharyngeal area. To understand the lymphatic spread of tumors from these mucosal regions a detailed study of the potential pathways is a sine que non. (Fig. 1)

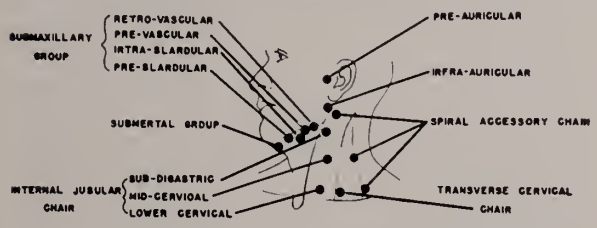


Fig. 1. The orderly pattern of deep cervical lymphatics. (From Martin, H. Cancer of the Head and Neck. A Monograph for the Physician). Am. Cancer Soc., Inc. 1949.

The majority of deep cervical channels extend throughout the length of the carotid sheath, the nodes themselves having a very orderly distribution.[15] (Note that the term "gland" is not used in relation to lymphatic structures because of the confusion associated with true glands of the neck, the salivary and thyroid structures.) By far the most common site of metastasis from these mucosal neoplasms is the upper jugular lymph node region, sometimes designated the "post-digastric area". (The "tonsil node" lies in this location.) (Fig. 2) It is

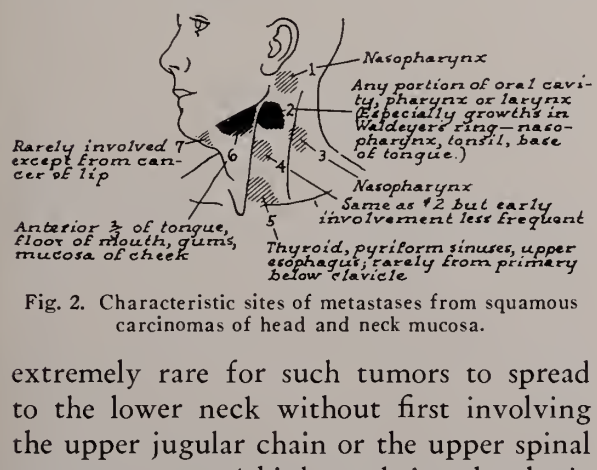


Fig. 2. Characteristic sites of metastases from squamous carcinomas of head and neck mucosa.

extremely rare for such tumors to spread to the lower neck without first involving the upper jugular chain or the upper spinal accessory group (this latter being the classic site of metastasis from the nasopharynx). The submental nodes are of primary interest in relation to lip cancer while the submaxillary group may be the site of metastases from any anterior oral lesions. Not uncommonly lymphosarcoma of the upper neck takes origin from a primary pharyngeal lesion, a differential diagnosis being essential between primary nodal lymphosarcoma and that same neoplasm in metastatic form. Patients with cancer of the oral cavity and laryngopharynx seldom develop evidence of spread below the clavicles until quite late in the course of their disease, death ensuing from local effects, i.e. obstruction to swallowing or breathing, hemorrhage from necrosis involving large vessels, or overwhelming infection. It is for this reason that radical surgery may be curative even in advanced stages of tumor development. Squamous cell carcinoma arising in a brachial cleft cyst is one of the rarest phenomena in the cancer field, for in nearly every instance of "primary squamous cell carcinoma of the neck" a true primary of the mucosal passages eventually becomes manifest.[8]

History and Clinical Course

Malignant squamous cell lesions of the oral cavity may take origin as painful ulcerations or symptomless nodules while minor salivary gland tumors almost invariably bear intact mucosal surfaces. Insidious nasopharyngeal tumors seldom produce the classic signals of unilateral fullness in the ear, obstruction to breathing, excessive nasal discharge or epistaxis, until far-advanced. In the posterior oral cavity and laryngopharynx sore throat frequently heralds the early stages of neoplasia, but a feeling of "lump in the throat" or indefinite fullness on swallowing may warn of their presence. Any adult with two or more weeks of these complaints should certainly be a cancer suspect. In paranasal sinus tumors, infection is often mimicked, the most deadly "inflammatory" lesion being "unilateral sinusitis", a rare clinical setting when cancer is not actually its cause.

Unfortunately, lymph node metastases often appear in these tumors before the patient is cognizant of trouble in the primary site.[6] In the presence of necrosis in secondary masses, chronic infection is a popular label and antibiotic or antituberculosis therapy is sometimes instituted prior to thorough mucosal examination. Lateral neck masses in middle-aged males should be called metastatic squamous carcinoma from the head and neck mucosa until proven otherwise, unless the supraclavicular region is alone involved. (Here metastatic cancer from within the thorax or abdomen is more likely.) Primary tumors of the major salivary glands must be differentiated from these metastatic masses, the parotid being the most common site, followed by the submaxillary and the rarely affected sublingual gland. Malignant neoplasms of the nasopharynx often spread to the upper spinal accessory lymph nodes while the primary is still extremely small. In four out of five cases, cervical metastases are present when the patient is first seen and, in more than half the instances, the primary tumor produces no symptoms at the time of initial examination.[6] The anatomic distribution of head and neck tumor formation varies considerably from one collected series to another and certainly from one country to another, due to environmental and racial factors. The incidence of various types of head and neck squamous cell carcinoma at the Medical College of Virginia in the years 1950 through 1955 is presented to demonstrate typical figures. (Table I)

TABLE I

Head and Neck Squamous Carcinoma 1950-1955
Medical College of Virginia

Lip	20	Tonsillar Pillar	2
Tongue	22	Pharynx	9
Gum	11	Paranasal Sinuses	8
Floor of Mouth	10	Mandible	1
Buccal Mucosa	6	Cervical Nodes—Primary Undetermined	2
Soft Palate	11	Trachea	11
Hard Palate	5	Nasopharynx	7
Soft and Hard Palates	11	Intrinsic Larynx	33
Tonsil	11	Extrinsic Larynx	23
Cervical Esophagus	1		
Total Number of All Cases			204

Diagnosis

Following the taking of an adequate history, a very thorough and systematic examination of the head and neck is essential in these cancer suspects. All accessible node bearing regions must be both palpated and visualized, and the oral cavity carefully scrutinized to bring every crevice and sulcus into view. Here the gloved finger is vitally important, and no examination is adequate without its utilization. The more inaccessible laryngopharynx must be viewed with a warmed laryngeal mirror adequately placed (many times without the necessity of anesthesia) against the soft palate. In the case of the nasopharynx, local anesthetic agents may be required to allow for comfortable palate retraction, a welcome aid in adequate visualization. In these deeper regions of the pharynx palpation is also vital in picking up small, nodular and otherwise mirror-escaping lesions.

Abnormal areas discerned here must be biopsied without delay, the technique being quite simple and readily carried out as an office procedure. One of the misleading diagnoses often gained is "chronic inflammation", neoplastic tissue having escaped sampling because of its surface coating of inflammatory tissue. "Punch biopsy" is for this reason a readily applicable modality. (Fig. 3) It should go without saying that masses in the neck must never be biopsied

until adequate examination has been made of the oral cavity and laryngopharynx to rule out a primary lesion. Helpful when no primary tumor can be found, aspiration biopsy (Fig. 4) has become an important tool in the diagnosis of metastatic nodular disease since node excisions are thereby obviated. Radical neck dissection is definitely more difficult and less curative when the

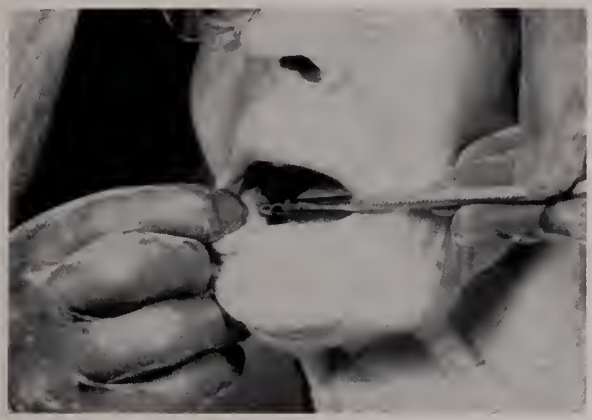


Fig. 3. "Punch biopsy instrument as used in diagnosis of lesion of buccal mucosa."

field of surgery has been marred by node excision. If all other procedures fail in making the diagnosis and, if aspiration biopsy material is indeterminant, node removal may become necessary in order to uncover the true nature of the disease process.

Treatment

The discovery of x-ray and radium for a time revolutionized the treatment of head and neck tumors after such surgical pioneers as Crile had established the basic principles of the operative attack in the pre-antibiotic and pre-transfusion era.[3,12] More recently a rebirth and extension of the surgical attack, made possible through modern supportive methods, has resulted in improvements in survival rates.[13,14,17] Nevertheless, skillfully administered irradiation remains an essential tool in selected instances. Radical neck dissection, including removal of all lymphatic tissues superficial to the deep layer of the deep cervical fascia, has become a routine procedure when metastases are present and, in many cases without probable masses, where lymph node spread is thought likely. The carotid vessels, the vagus, phrenic, lingual and hypoglossal nerves and the brachial plexus are ordinarily preserved in this procedure while the spinal accessory nerve is frequently sacrificed.[9] Removal of one jugular vein rarely results in serious complications, but excision of both may produce



Fig. 4. "Aspiration biopsy technique for diagnosis of cervical mass."

transient though very marked elevations in the spinal fluid pressure. Bilateral simultaneous radical neck dissection has become an essential part of this modern approach where less effective, staged procedures were once employed. (Fig. 5) Oftentimes a neck dissection procedure is combined with removal of the primary lesion (with or without a portion of the mandible). Replacement of involved carotid vessels by teflon grafts has rendered the attack upon locally advanced tumors even more complete.[13] Reconstruction of the pharyngo-esophagus may be necessary when defects cannot be closed pimarily, immediate or delayed tech-

niques being applicable according to the extent and location of the tumor.[14,17] Readily learned by patients undergoing simple laryngectomy, esophageal speech may be difficult when more extensive procedures have been performed. In cancer of the nasopharynx, x-ray therapy is still the treatment of choice because of surgical inaccessibility. Lymphosarcomas and "lymphoepitheliomas", being ordinarily radio-sensitive, are treated with x-ray although certain localized instances of primary upper cervical lymphoma lend themselves to radical surgery. In some medical centers, the insertion of low intensity radium needles into primary oral tumors has given good survival statistics and extremely good functional results, but necrosis of bone, always a fearful complication when interstitial irradiation is administered in close proximity to the mandible or maxilla, may result. External irradiation of squamous cell cancer in lymph nodes is rarely successful, radical neck dissection being here the treatment of choice. Early lesions must be attacked radically and without delay, the best chance of cure lying in the hands of the first physician treating a given head and neck cancer. When recurrence develops, cure rates drop precipitously. It has been shown that radical surgery for contralateral cervical metastases, developing after ipsilateral dissection, is just as successful as any unilateral procedure. In the case of parotid tumors, partial or total parotidectomy must be applied with careful dissection of the facial nerve and its preservation if possible.[5,11] The "skinning-out" of nodules in the parotid region is to be deplored because of the great possibility of recurrence even when a benign lesion is present. In general survival rates in mucosal cancers of the head and neck can be quite high with early diagnosis. The well known figures of Martin[7] are presented here to demonstrate these therapeutic results.



Fig. 5. Post-op appearance of patient two years after simultaneous bilateral radical neck dissection, total laryngectomy.

In neoplasms of the laryngopharynx exclusive of the vocal cords, the approach by radical dissection and in-continuity removal of the primary has resulted in a tremendous improvement in survival statistics over those achieved in earlier years with irradiation. By radical techniques for cancers in the extrinsic laryngeal area (those portions lying away from the vocal cords) five-year statistics showing 35% five-year survivals have been achieved.[13] Pharyngeal wall lesions yield much lower cure rates which should improve with earlier diagnosis. In nasopharyngeal cancer the picture is generally dark because of a mere 5-10% survival rate but the picture brightens in early lesions where figures jump to 35%.[14] All in all, cures are becoming more frequent due to earlier diagnosis and earlier recognition of dangerous symptoms by the patient, in addition to the more advanced techniques of surgery and irradiation outlined.

Summary

The practicing physician should be continuously on the alert for signs and symptoms of early head and neck cancer and

thorough investigation must be employed in any suspected case. Knowledge of neck anatomy including the important lymphatic pathways is essential for their prompt recognition. Biopsy of suspicious lesions should not be delayed and repeated biopsies must be carried out if necessary. Newer surgical and irradiation techniques have shown their worth in producing survival rate improvements but continuing progress will only come through the physician's constant awareness concerning the presence of these insidious neoplasms.

TABLE II

FIVE-YEAR CURE RATES IN MOUTH CANCER

SITE OF PRIMARY LESION OF CANCER	Percentage Five-Year Cure Rate in All Cases (All Comers Both Early and Advanced)	Percentage Five-Year Cure Rate in Early Cases (Primary Lesions Less Than 2 cm.)
Lip	70	86
Tongue	30	55
Floor of Mouth	20	50
Mucosa of Cheek	24	60
Palate (hard and soft)	30	57
Gum	32	38
Tonsil	20	40

*Period of 1935-1942 (Memorial Hospital, N. Y. C.)

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The Foot and Lower Leg

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Disorders of the foot and lower leg and their treatment are reviewed.

Foot Strain

THESE PATIENTS are divided into two groups, adults and children. Adults present symptoms of pain and fatigue with aching. This may involve the entire calf up to the knee and may be localized to the foot. Symptoms are usually aggravated by activity and relieved by rest. They limp and at times must remove the shoes to massage the feet.

Examination is performed with the patient standing, exposed from the knee down, and the foot should be observed from the back, front, and sides. The back view gives a clear indication of the weight bearing line. (Fig. 1) A plumb line dropped from

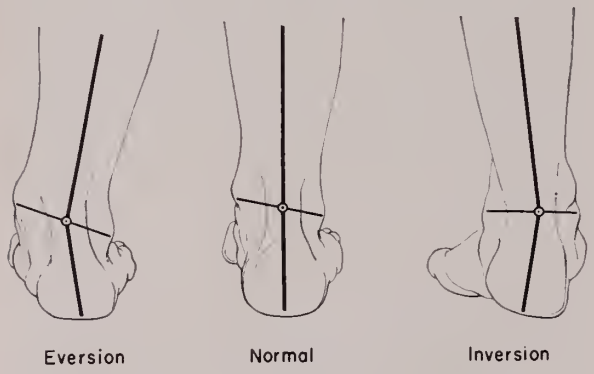


Fig. 1. Weight bearing line. Eversion usually causes fatigue type foot strain. Inversion causes ankle pain.

the middle of the knee should fall straight through the ankle joint, the astragalus and oscalcis to the round. If the oscalcis is everted, the plumb line will fall to the medial side of the oscalcis. In a rare case the heel will be inverted and the plumb line will fall to the outer edge of the oscalcis. Examine the foot relaxed to determine the pressure of any peroneal spasm. This can be elicited by inverting the foot. If this motion is resisted by the peroneals, spasm is present. X-ray is indicated to rule out congenital bars.

Careful palpation between the heads of the metatarsals individually, comparing both right and left sides, will rule out early

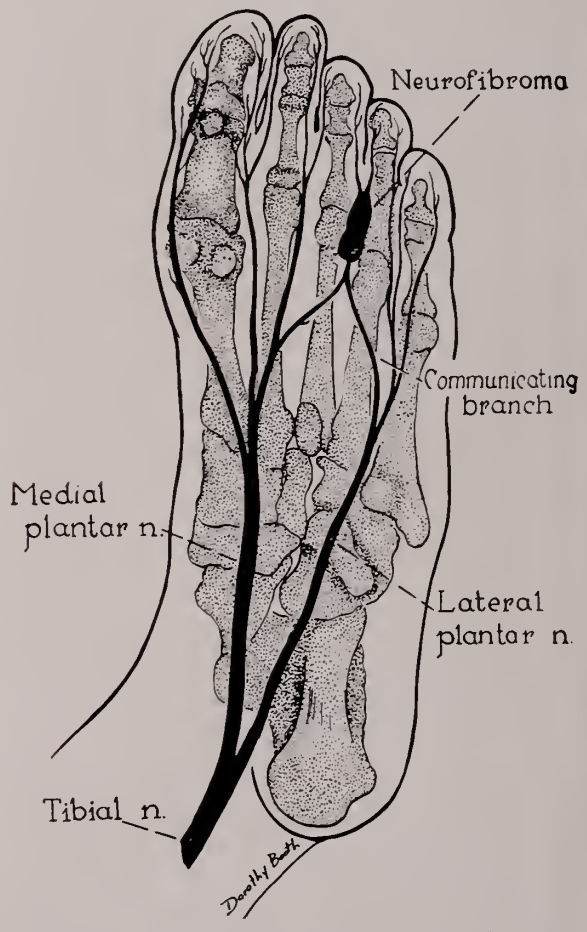


Fig. 2. The neuroma can occur between all of the toes and very occasionally between the big toe and 2nd toe.

plantar neuroma (Morton's neuroma). (Fig. 2) Note the height of the longitudinal arch. Circulation of the dorsalis pedis and the

From the Department of Orthopedic Surgery, Medical College of Virginia.

posterior tibial. The sole of the foot is examined for callous formation. Especially notice the tender areas over the origin of the plantar fascia and under the longitudinal arch. Any swelling is noted. The medial side of the first metatarsal head and the lateral side of the fifth metatarsal head are examined for bunions or bunionettes. The alignment of the toes is examined for the presence of hammer toe or claw foot. Any sign of a plantar wart or other tumorous growth is recorded. Examine the toenails for the presence of infection. Always notice the presence or absence of local heat when examining extremities.

If the underlying condition is primarily one of loss of weight bearing line, the treatment is proper shoes with *built in* arch supports supplemented frequently by a three-sixteenth inch elevation of the inner border of the heels. The discomfort can usually be benefited by contrast baths of hot water for two minutes and cold water for one minute, twenty minutes twice daily. The proper shoe includes a good fit with a stiff shank and a firm sole. The treating physician should see these shoes before advising the patient to purchase them. The support is usually a combination longitudinal and metatarsal arch support as relaxation in one area usually implies relaxation in both areas. If there is any suggestion of neuroma formation, the metatarsal support should be made higher in order to relieve pressure in the region of the irritated plantar nerve. The usual lift is 9/32".

Pronated Feet in Children

Special attention should be given to pronated foot deformity in children. As mentioned above, the presenting symptom in adults is pain. In children, the pronation that would cause pain in an adult causes anxiety in the parents and grandparents as a child rarely complains of foot pain as a result of pronation. The presenting symptom, therefore, is usually a statement by a parent or grandparent or other relative that the child walks at an irregular speed or that he trips or that his feet do not look normal. Not infrequently the presenting symptoms is pigeon toe. This is an effort on the part of the child to protect the pronated heel by walking with the toes turned in.

Examination is essentially the same as the examination of adults. Attention should be directed however to the hips and knees as in children there are frequently associated malalignments. All patients brought in because of pigeon toe should be checked carefully to be sure that there is not an underlying pronation of the heels. If spasm is present in the peroneals, x-rays should be made to determine whether or not there are congenital bone anomalies in the foot. (This dictum also applies to adults). Tight heel cord may be the cause of pronation.

Pigeon toe deformity, if correctible manually, may be treated with stretching and correcting the underlying pronated heel. If it is not correctible manually, one may resort to the use of Denis-Browne night splints, holding the feet in external rotation in such a way as to hold the heel in inversion. In an occasional severe case, pigeon toe deformity or varus of the forefoot may require plaster correction similar to that used in club feet.

In treating foot deformities in children it is imperative to have prolonged follow up and careful notes to avoid recurrences and lapses in treatment. Occasionally in treating pronated feet without pigeon toe, we use Denis-Browne night splints to roll the oscalcis in. If x-rays reveal tarsal bars or anomalies to be present, a triple arthrodesis may be required after the age of ten.

Plantar Warts

Plantar warts are caused by a virus which grows in calloused thickened tissue. Individual resistance plays an important role. Treatment must be directed at correcting the mechanics sufficiently to avoid pressure and allow the callous to thin out. Frequent trimming of the calloused area and desiccation of the plantar wart with bichloracetic

acid at weekly intervals is recommended. Once the plantar wart has been mechanically protected and desiccated sufficiently to be *almost non-existent,* it should *then* be given one or two x-ray treatments. X-ray treatment prior to proper preparation as described above is doomed to failure and will frequently leave a scar more painful than the original plantar wart.

Soft Corns

Soft corns are macerated callous formations between the toes, usually immediately over adjacent interphalangeal joints. X-ray may reveal spur formation immediately under the calloused area. Conservative treatment employs the use of lamb's wool to separate the toes and avoid pressure. Check to see that shoes and stockings are not too tight. Keep the area dry. This is frequently the result of abnormal weight bearing line and may be corrected by proper leather inlay arch supports. Very rarely this treatment fails and surgery is required at which time we remove all or a portion of the phalanx immediately underlying the plantar callous. This gives an excellent result.

Bunions

Bunions require treatment in proportion to the *symptoms.* The presenting symptoms may be pain and discomfort with large soft tissue bunion formation over a prominent bony exostosis of the head of the first metatarsal. If these do not respond to larger shoes they frequently require surgery.

Surgery, to be successful, must (1) remove the exostosis, (2) tighten up the lateral capsule to hold the toe in the correct position, and (3) release the deforming force of the adductor to the great toe. If the long extensor to the great toe is tight, it must be lengthened. Occasionally it is necessary to remove the medial sesamoid. If there are marked arthritic changes, the simplest procedure is to resect the proximal end of the first phalanx and excise the bony exostosis. This accomplishes a sufficient release of the deforming factors and does not cause noticeable shortening of the great toe. As there is frequently pronation deformity of the foot, this should also be treated with proper balancing of the foot with arch supports. If there is splay foot deformity also, osteotomy of the first metatarsal may be indicated. This is best accomplished at the *proximal* end of the 1st metatarsal.

Bunionettes

This enlargement of soft tissue over the head of the fifth metatarsal usually can be relieved by adequate shoe size and rarely requires surgery. Surgery will give complete relief of pain and cosmetic satisfaction. It requires removal of most of the head of the 5th metatarsal.

Plantar Neuroma

This condition, if noted early, may be treated conservatively with metatarsal arch supports.[1] The underlying pathology of fibrosis and scarring of the plantar nerve, usually between the second and third or third and fourth metatarsal heads, is the result of repeated trauma to the nerve root. This trauma is the result of the pull on the nerve as well as relaxation of the metatarsal arch. Protection of this area with proper supports will frequently prevent the necessity of surgery. Once a neuroma has attained any size, the patient will frequently be unable to walk for prolonged periods without removing the shoe and massaging the foot. Often they complain of numbness between the two toes involved and the pain may be referred up the leg. The occurrence is approximately nine to one in women. High heeled shoes apparently have some etiological relationship.

The diagnosis can be made on the basis of the history and a very vigorous palpation between the heads of the metatarsals reproduces the pain. Occasionally the tumor can be felt. (Fig. 2) When surgery is indicated, use a tourniquet. A dorsal incision gives adequate space to completely excise the *entire*

neuromatous mass which usually extends from the position approximately one inch proximal to the metatarsal heads, out to the branching of the two interdigital cutaneous nerves. (Fig. 3) This will leave a numbness

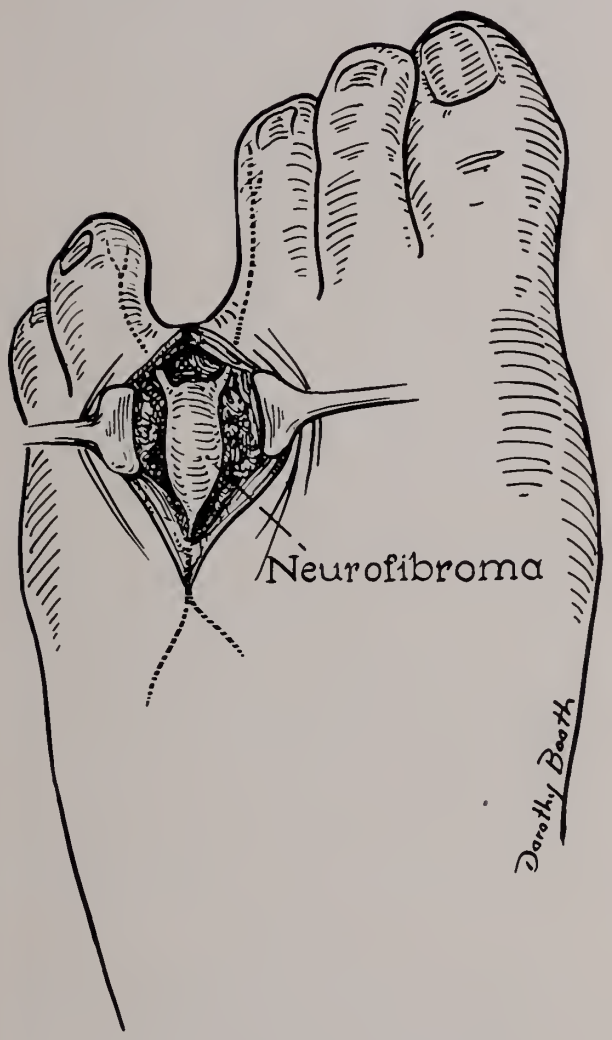


Fig. 3. Three inch dorsal incision to remove Morton's neuroma.

between the toes which should be explained to the patient in advance. Relief of symptoms is very gratifying to both physician and patient. Frequently following surgery it is necessary to continue with a metatarsal support for a prolonged period.

Club Foot Deformity

Club foot deformity is the most frequent serious deformity of feet[2,3] and should be divided into two general groups. Primary, resulting from abnormal embryological developmental characteristics, the most severe type; secondary, result of positional factors in utero. This is usually a milder sort and corrects more easily. The underlying condition is talpes equino varus, inversion of the oscalcis adduction of the forefoot, and equinus of the entire foot. The etiology is very frequently an abnormal pull of the muscles over the inner edge of the foot and not infrequently there may be an accessory muscle in the region of the posterior tibial tendon. Examination should include thorough examination of the entire child to rule out other congenital deformities, particularly hip deformities.

Regardless of the severity of the club foot, treatment should be started as soon as the diagnosis is made and in all cases if it is found in the newborn it should be treated *prior* to taking the child home. The initial cast should be applied in the hospital. The treatment is directed at correcting all of the deformities, however, it is imperative that the oscalcis be corrected to a position lateral to the astragalus while the foot still remains in equinus. Any effort at dorsiflexing the foot before the oscalcis has been placed lateral to the astragalus will increase the deformity of the oscalcis and prevent successful treatment. If there is any doubt concerning the progress of treatment, one should continue with the phase that is being carried out before proceeding to the second phase. If there is any doubt that the oscalcis is over-corrected to its lateral position, one should not start dorsiflexion but should continue every effort at unwinding the oscalcis. Once this is accomplished the forefoot may be brought back to the midline from the over-corrected position and dorsiflexion started. We prefer the application of a tight shoe throughout the treatment in order to minimize rocker bottom foot and to give maximum control of the various components of the deformity throughout the treatment.

Once the correction is obtained in dorsiflexion as well as the over-corrected position

of the oscalcis in reference to the astragalus, the foot is then placed in a combined over-corrected position and maintained for a period of six to eight weeks, changing casts as necessary for growth during this interval. The frequency of cast changes during the corrective procedure may be varied from one to three weeks. If correction is obtained as it usually is before the child is walking, we feel that it is important to apply Denis-Browne night splints, holding the foot in dorsiflexion and external rotation to prevent recurrence. Careful follow up is essential. The child should not be discharged until he is walking normally.

Surgery

If the above treatment is followed enthusiastically, very few cases will require surgery. We condemn subcutaneous or blind surgery and feel that the deforming factors should be approached under direct vision,[2,4] usually through a long medial incision to approach the posterior tibial tendon and allied structures. Neglected cases or recurrent cases may require the same type of surgery. Some cases will require bony surgery after the foot has matured to the age of ten. The most important thing in handling of club foot cases is a careful and persistent treatment regime that should never be discontinued until a satisfactory foot is obtained; one which may be easily over-corrected and one on which the patient walks satisfactorily. It is unsatisfactory for various physicians to treat these patients and although the treatment period may extend over many months, it should be carried out by the same physician. If there is any question concerning the progress of treatment in club foot cases, the easiest way to determine progress is to save the casts as they are removed and reconstruct them with a few rolls of plaster.

An overlapping small toe may be treated by excision of the toe or entire fifth ray. This gives an excellent functional and cosmetic result.

Other conditions of the lower extremity include various deformities such as hypertrophy, webbed toes, absence of toes, absence of fibula, congenital pseudo arthrosis of the tibia. The latter condition should be suspected when there is any dimpling of the skin over the tibia or any bowing in the region of the tibia. Treatment of these cases requires special and individual attention that will not be dealt with in this discussion.

Any patient with infection in the region of the foot should be carefully checked for the presence or absence of diabetes (a bloodsugar test). Do not depend upon a urine test. Painful swollen conditions of the foot should also suggest the possibility of gout and blood uric acid studies obtained. A trial of Colchicine may be diagnostic. It should also be borne in mind that arthritic conditions, malignancy and generalized infections also have manifestation in the feet and lower legs, and a careful investigation should be followed out in reference to any suggestion of inflammatory condition. A careful survey of the body as a whole will be required.

Editor's Note: Figures 2 and 3 republished with permission of Virgil R. May, Jr., M.D. and Southern Medical Journal.

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Current Currents

THE LEGISLATIVE SCENE: Those groups which developed into such a well disciplined army fighting for passage of King-Anderson legislation are now hard at work preparing a new onslaught. This fact was clearly in evidence during the recent meeting of the National Medical Association, an organization of some 4,000 Negro physicians. The Association adopted a resolution endorsing the principle of financing health care for the aged through social security.

The Cook County Physicians Association, a constituent association of the NMA, has described the pressures on NMA by King-Anderson proponents. In a news release, the organization stated that "NMA has been plagued by representatives from the AFL-CIO from Cleveland, by attorneys, by representatives of the Senior Citizen's Council, and other non-medical personnel who have flooded the convention with HEW literature." The Cook County Association, and most of the leaders of NMA, have registered their disapproval of the vote which endorsed the social security approach.

NATIONAL COUNCIL: The National Council of Senior Citizens has announced that it is launching a drive to elect Congressmen who will support the social security approach to health care of the aged. In a mailing to its 1,500 member clubs, the Council urged that public support be mobilized for candidates who favor the Administration's proposal for health care of the aged.

MEDICARE FOR SERVICE DEPENDENTS: The Medicare contract has recently been amended to provide the following authorizations for radiation therapy:

(1) Prior to Hospitalization—Allowable, effective July 1, 1962, on an outpatient basis when followed by authorized hospitalization for treatment of the condition for which the radiation therapy was prescribed. Payment cannot be made until after a period of authorized hospitalization for the condition is commenced.

(2) During Hospitalization—Allowable, effective December 7, 1956, when prescribed as part of the course of treatment during authorized hospitalization.

(3) After Hospitalization—Allowable, effective December 7, 1956, on an outpatient basis when the course of treatment is prescribed or initiated during a course of authorized hospitalization.

DID YOU KNOW? The annual per capita consumption of candy in this country is a little more than eighteen pounds.

There were 98,512 forest fires in 1961, many caused by lightning, and many by careless smokers and campers.

DRUG COMPANY CONTRIBUTIONS: Prescription drug companies and their charitable foundations spent $25 million on public service activities in 1961, amounting to 4.3% of their net taxable incomes. This information, contained in a recent survey report, revealed that drug firms' donations rank well above the all-industry average for public service contributions.

Data for the survey was supplied to the Pharmaceutical Manufacturers Association by 43 firms accounting for more than 80% of the prescription drug industry's sales, assets and employment and by three company-related charitable foundations. The firms all are members of the association.

The $25 million in contributions includes $11.1 million in cash donations and $13.9 million in public service activities financed by drug companies. A recent national foundation's analysis of more than one million corporation income tax returns shows gifts averaging one percent of taxable income. By comparison, prescription drug industry donations are twice this percentage. The portion of their incomes spent on total public service activities is four times as much.

The largest share of the industry's cash contributions, $6.2 million, went for support of schools and universities by grants, fellowships and scholarships. The companies also gave $2.7 million to United Fund drives, local and national health and welfare agencies, and in grants to hospitals. Another $2.2 million was given to church and civic organizations, for various special programs, and to support a wide range of cultural activities.

PUBLIC ASSISTANCE ADMINISTRATION: Too few Virginia citizens are familiar with the workings of the State's public assistance programs. These programs are locally administered under State supervision. Local boards of public welfare appoint superintendents of welfare in counties or cities from lists of eligibles certified by the State. The local boards determine the amounts of the various grants within regulations of the State Board, which is required by State law to set standards.

Programs in the various states vary a great deal. This is because each state prepares its own plan for its public welfare program. The federal government, however, requires that each plan be such as to fulfill the general purpose of the federal law, and that the plan assure equitable treatment of individuals.

NOVEMBER 6: The next few weeks could well be the most important in recent history—as far as the medical profession and other freedom loving Americans are concerned. Each physician should make sure that he casts his ballot on election day.

Facio-Cranial Mucormycosis

Report of a Case

ITALO RINALDI, M.D.
SAMUEL F. ASHBY, M.D.
Newport News, Virginia

When it occurs, this unusual disease, mucormycosis, is likely to be the terminal event for a patient already debilitated by some other disease.

FATAL INFECTIONS caused by common saprophytic fungi, often but not always complicating or terminating cases of diabetes mellitus, have been of late reported with increased frequency. This report concerns itself with the association, in a colored patient, of uncontrollable diabetes mellitus, rapidly developing orbital cellulitis, with total ophthalmoplegia and exophthalmus, as well as with cavernous sinus thrombosis. In this patient the presenting features were so typical that the diagnosis could be made on the basis of clinical findings alone.

G. N. (45572, Whittaker Hospital). This 53-year-old colored cobbler was admitted to the Whittaker Hospital on July 10, 1961, with a two weeks' history of mild shortness of breath and swelling of both feet and ankles. The past history was unremarkable except for one episode of mild congestive heart failure, in March of 1959, treated with digitalis and diuretics by one of us (SKA). The patient was not seen since October of 1959 until one day prior to admission, at which time it was stated that he had neglected to take his digitalis for approximately three or four weeks. There was no history of diabetes mellitus in this patient or in his immediate family.

On admission to the Whittaker Hospital (SKA), he was alert and coherent and exhibited mild respiratory distress and edema of both feet and ankles. Blood pressure was 130/90. The pulse rate was 90. The temperature was 100°F. Arcus senilis was noted in both eyes. Scalp, head, ears, nose and throat were unremarkable although the patient complained of some soreness in his mouth and nose. The neck was supple. Scattered rales were heard in both lung fields, posteriorly. The heart exhibited a regular rate and rhythm and appeared to be slightly enlarged. A systolic murmur, most pronounced in the aortic region, was audible. Palpation of the abdomen revealed an enlarged but not tender liver, the surface of which felt grossly nodular. Neurological examination was within normal limits.

X-ray of the chest was normal. An EKG revealed auricular fibrillation and evidence of myocardial disease. The patient was placed on digitalis and Diamox.

The following day, July 11, 1961, the patient began to complain of generalized headache. He was still alert and coherent. The temperature was 100.2°F. Urinalysis had showed 4+ sugar, negative acetone, a specific gravity of 1.030, and traces of albumin. The CBC revealed 18,500 WBC's with 78 polys and 22 lymphocytes. The hematocrit was 48 per cent and the hemoglobin 15 grams.

Because of the slightly elevated temperature as well as for the evident pleocytosis, the patient was placed on Declomycin, which was given to him throughout his hospitalization. Insulin therapy was begun.

July 14—The patient continued to complain of headaches. For the first time, a

conjunctival irritation of the OD became evident. Exophthalmus with slight ptosis of the upper eyelid of OD, as well as complete external ophthalmoplegia, were noted. The pupils were small and reacted to light. The fundi were somewhat difficult to visualize but were thought to be normal. Ocular tension was measured as normal. A fasting blood sugar level of 564 mg. per cent and a BUN of 49 mg. per cent were reported. Daily checks of the urine, for the remaining of the patient's life, always revealed the presence of sugar in spite of appropriate attempts to control the diabetes with insulin. From the 14th of July on, acetone was detected in the urine every day, in spite of adequate hydration.

July 15—Edema of the eyelids of OD became apparent, with some swelling of the right side of the face. By evening the patient was slightly confused and the edema and redness of the eyelids and of the face had become very pronounced. The patient still complained of generalized headaches.

July 16—Very drowsy. At times the patient would complain of headache and of "burning" of both eyes.

July 18—The right side of the nose was found to be swollen. Purulent conjunctival drainage started. The right eye was painful. The patient started to have a hacking cough and vomited a few times. The drowsiness seemed to increase to the point of lethargy and at times the patient became quite unresponsive.

July 19—The swelling of the right side of the face, nose and eyelids increased. Purulent, hemorrhagic, conjunctival drainage became marked while nasal discharge of similar appearance began.

July 20—X-rays of the skull and sinuses revealed marked clouding of the right maxillary antrum and thickening of the mucosa of the right turbinates and nasal septum. No gross involvement of the ethmoidal air cells was present. (Fig. I) The walls of the orbits appeared intact. The cranium itself was normal.

The skin of the right upper eyelid, mesially, as well as the skin overlying the bridge of the nose, began to appear very black and necrotic. The patient's level of consciousness would vary a great deal during any given day; nevertheless, the patient would



Fig. 1

be almost always incoherent, uncooperative and very somnolent. The swelling of the left eyelid and the chemosis of OS became more apparent and the patient started to have difficulty in swallowing.

July 22—The cornea of the right eye became quite opaque and whitish. Staining with mercurochrome showed ulcerations of the cornea. There was complete external and internal ophthalmoplegia of OD. The patient could perceive only light with the OS, if able to see at all.

July 23—The patient could not be aroused any longer. Neurosurgical consultation was sought.

Examination (IR) revealed a deeply comatose, very emaciated, moribund male, exhibiting gasping, irregular respirations and profuse cold diaphoresis. There was generalized flaccidity of all muscle groups. No reflexes and no reaction to pain could be obtained. There was mild bilateral proptosis, especially of the right globe. The conjunctiva was markedly swollen and reddened and a thick yellow exudate covered both globes. The surface of the right eye was completely white and opaque and the fundoscopic examination could not be car-

ried out. Irregular, ragged ulcerations of the cornea were present. The left eye was slightly opaque and whitish. The pupils measured about 3 mm. and did not react to light. The eyelids of the right eye were edematous and the globe itself was almost completely covered by the chemotic eyelids and conjunctiva. A black eschara covered the skin of most of the right upper eyelid, of the mesial portion of the lower eyelid and the right side of the nose (Fig. 2). Most



Fig. 2

of the right side of the face was edematous. There was thick yellowish exudate in both nostrils covering most of the mucosa of the turbinates which appeared swollen and black. The mucosa of the hard palate had a dark brown color and was covered with thick, gelatinous tan-colored exudate. A shallow ulcer, 2 cm. in width, was seen just posterior to the upper incisor teeth. A smaller ulcer was present at the junction of the hard and soft palate, approximately in the midline. The tongue had a black coating. The neck was somewhat rigid. Kernig's and Brudzinski's signs were negative.

On the basis of the clinical observation alone, one of the authors (IR), recalling two similar cases seen at the Medical College of Virginia Hospitals, felt that the provisional diagnosis of facio-cranial mucormycosis was entirely justified.

Scrapings and smears from the ulcers on the palate were obtained. Punch biopsy of the ulcers was then carried out. Cultures of the thick exudates were taken.

Shortly after these investigations had been performed the patient expired. A urinary specimen obtained early in the morning had shown a 4+ sugar and a positive reaction for acetone. Blood sugar examination done at the same time was 24 mg. per cent. Permission for autopsy was granted.

Pathological Reports: 1. Biopsy and smears. (R. J. Faulconer, M.D.) "Sections of submitted tissue from the hard palate reveal markedly keratinized thickened organized stratified squamous epithelium. This is accompanied by clusters and foci of squamous cells as well as keratin material. Epithelial cells are organized and there is no evidence of malignancy in the sections examined.

2. Sections of the cell block obtained from the scrapings of the hard palate reveal clusters of squamous cells as well as keratin material. In most areas there is debris admixed with aggregates of lymphocytes and plasma cells. There are also leucocytes in some foci and rounded, clear cells or bodies are seen in one or two zones which under high dry power are intermixed with hyphae structures and spherical structures which might possibly be yeasts."

The hyphae consisted of cylindrical structures which in a few places were rather nodular in appearance. Some were quite long and lateral branching was evident. No septa were present. These hyphae were rather broad and looked very much like the hyphae seen in the tissues obtained later at autopsy from the orbit and from the wall of the right cavernous sinus. The spherical structures would be consistent with the appearance of Monilia.

3. The culture obtained from the exudates revealed a florid growth of a fungus which microscopically was reported to have the appearance of Aspergillus fumigatus. This diagnosis, however, could not be rechecked by us since the laboratory technician inadvertently threw the specimen away. Further comment will be made later in the paper.

Autopsy Report, July 24, 1961. (M. B. Beecroft, M. D.) The following pathological pertinent findings were present: A small amount of fibrinous exudate was found over the parietal pleura of both the right and the left lung. Both lower lobes of the lungs showed lack of aeration and on cut section revealed occasional small red and gray granular areas. Edema was present in all lobes. The brain was removed in the usual fashion.

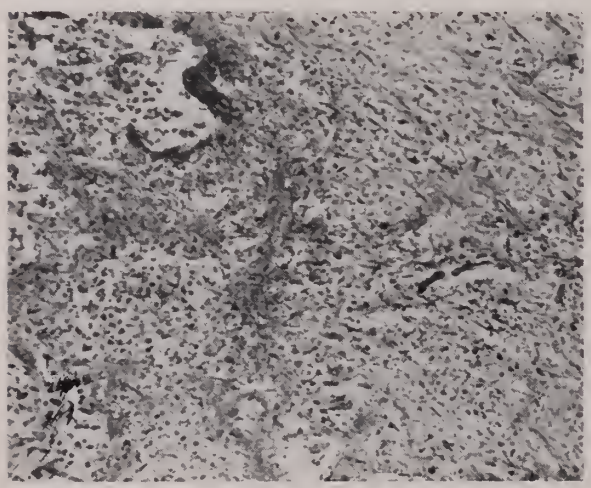


Fig. 3

It was generally edematous. No gross abnormality of the vessels of the Circle of Willis was found. The internal carotids were patent. The right cavernous sinus was sectioned and was found to contain a solid, partly organized thrombus. The right orbital plate was removed and a small amount of grayish exudate was found to be present within the orbit. The cellular tissue of the orbit as well as the eye muscles were very soft in consistency and grayish in color.

Microscopic examination revealed purulent exudate within some of the alveoli of the lungs. The interstitial tissue showed a few pus cells and accumulations of lymphocytes. Careful examination revealed no fungi. Multiple sections of the brain showed no evidence of microscopic pathology. Section of the right cavernous sinus showed the presence of a thrombus with early organization. The wall itself showed many areas of necrosis. These necrotic areas were surrounded by pus cells. In many areas broad, branching, nonseptate fungi were found. (Fig. 3.)

Sections of the orbital contents revealed many foci of necrosis surrounded by pus cells and lymphocytes. Some of the muscle fibers were necrotic. Broad hyphae were found both in relation to walls of intraorbital vessels as well as free in the loose cellular tissue, with or without tissue reaction. (Figs. 4 and 5).

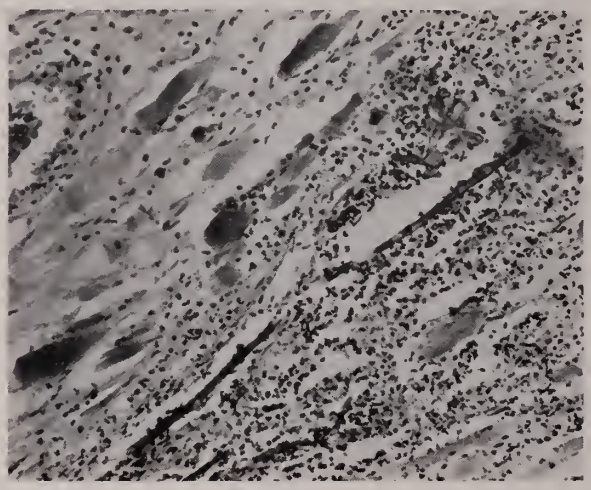


Fig. 4

The pathological diagnosis was (1) acute necrotic orbital cellulitis and myositis, (2) right cavernous sinus thrombosis, (3) acute fibrinous pleurisy and broncho-pneumonitis, (4) toxic nephritis, (5) fat infiltration of the liver with chronic interstitial hepatitis and chronic fibrous pancreatitis.

Summary

This is the case of an elderly Negro male who was admitted to the hospital for an illness seemingly unrelated to the disease which rapidly ensued and led to a fatal exitus. The patient was discovered to have diabetes

mellitus which proved very hard, if not impossible, to regulate. Twenty-four hours after admission this patient developed a rapidly progressing syndrome which can be considered typical of a saprophytic mycotic infection involving the contents of the orbits, the nasal turbinates and the right maxillary antrum. Characteristic of this infection were the black ulcerations of the hard palate, the black appearance of the nasal turbinates[1] as well as the ischemic necrosis of the skin of the eyelids and nose. In a very few days it became apparent that the



Fig. 5

infection had spread, probably from the right orbit, into the cranial cavity with subsequent rapid exitus. The combination of these clinical manifestations was considered typical enough to lead to a clinical diagnosis which later on was proven to be correct. Appropriate therapeutic measures could not be undertaken because of the very quick fatal outcome.

Discussion

Intervening or terminal saprophytic fungal infections have been described in association with severe cutaneous burns[2] in patients receiving prolonged steroid and/or antibiotic therapy,[3-4] in chronically ill individuals especially suffering from leukemias,[5] lymphoma,[6] blood dyscrasias, hemochromatosis,[7] acidotic states without diabetes mellitus,[8] and most frequently in patients suffering from diabetes mellitus.[9]

The fungi responsible for these infections are normally saprophytic but potentially are pathogenic and are extremely common and ubiquitous in nature. In fact, they are commonly called "bread molds". They can even be cultured from the nose, throats or stools of healthy individuals.

These saprophytes belong to the Class Phycomycetes, Order Mucorales, Family Mucoraceae, and Genera Mucor, Rhizopus and Absidia. Their identification can be made on the basis of their cultural pattern, of their morphologic appearance, both in cultures and in the tissues, and of their rather typical invasiveness and the pathological tissue alterations produced by them. In our patient a culture was obtained from the ulcerations on the mucosa of the hard palate. The culture was reported as showing a rapid growth of "Aspergillus Fumigatus" which is another common saprophytic fungus belonging to the Class Hyphomycetes, Order Aspergillalies, Family Aspergillaceae, Genus Aspergillus. This fungus, however, has a typical septate hyphal structure which was not found in any of the hyphae seen in the tissues obtained at autopsy. Furthermore, the hyphae of the Aspergilli are not as broad as the hyphae of the Phycomycetes. It is felt that either there was gross error made in the identification of the cultured fungus or that the fungus recovered from the palatal ulcerations (Aspergillus) was not the same fungus (Mucor) responsible for the facio-cranial infection which led to our patient's exitus. It is very interesting to notice how a third fungus of the Form Class Deuteromycetes, Form Order Moniliales, Form Family Cryptococcaceae, Form Genus Candida, was found in the palatal biopsy. It seems therefore possible that more than one saprophytic fungus, under certain circumstances, might become virulent and invade the tissues of its host.

The fungi of the Class Phycomycetes, Family Mucoraceae, which are the causative agents of human or animal mucormycosis, appear in the tissues as large, broad, branching non-septate hyphae. The Genera Mucor

and Rhizopus have the unique feature of invading the wall of blood vessels with resultant thrombosis and infarctions. A frequent finding is thrombosis of the internal carotid artery, either intracranially or in its cervical portion,[8-10] with resulting cerebral infarction. In our patient there occurred invasion of the wall and thrombosis of the right cavernous sinus, obviously a direct extension, through the ophthalmic veins, of the invasion of the right orbit. The black escharae covering the mucosa of the turbinates, as well as the skin of the eyelids and bridge of the nose, were the result of thrombosis of the nasal as well as of facio-orbital arteries. The individual hyphae may even be large enough to completely obstruct small vessels or capillaries. The inflammatory reaction in the tissues invaded by the hyphae is minimal, if present at all. When an inflammatory response is present, it is related to the tissue injury resulting from the vascular thrombosis.

Which factor should be considered responsible for the dissemination and pathogenicity of these normally saprophytic nonpathogenic fungi? There must be a combination of predisposing and facilitating noxae acting either alone or in association. On the one side there must exist an underlying state of lowered systemic organic resistance, such as it is found in blood dyscrasias, carcinomatosis, lymphomas and related diseases. This lowered resistance, coupled to metabolic alterations, such as one finds in diabetic patients or resulting from the use of antileukemic agents, must be operative in the creation of a metabolic substratum favorable to the growth, virulence, and rapid spread of these fungi. Other noxae may be present but, as of now, they appear to be poorly understood.

It is extremely important, although rare these infections may be, to recognize this rather typical association of symptoms for even in the instances in which prompt recognition of the disease is made and appropriate therapy instituted, the outcome is unfortunately most often fatal.

The management of these infections should include:

(1) Prompt recognition of the typical clinical picture. The examiner's suspicion should be aroused by the association of a diabetic, acidotic, or debilitated state with rapidly developing facio-orbital infection and meningoencephalitis.

(2) Attempts must be made to correct the underlying precipitating or facilitating disease.

(3) Cultures from the nasal or conjunctival exudate as well as from the ulcerative lesions of the palatal mucosa must be made.

(4) It is advisable to perform at once biopsy of the turbinates or of the palatal lesions. *Careful search of the typical hyphal structures should be made, for they may be easily missed unless the examiner is looking for them.*

(5) Prompt institution of therapeutic measures with antifungal medications, such as Amphotericin B and Sodium Iodide, should be undertaken.

Appreciation is expressed to Mrs. Shirley Ange for her very kind assistance.

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Newport News, Virginia

Travelers' Bane

A sulfa drug has proved effective in preventing so-called "travelers' diarrhea" in a significant number of persons. In a study involving 473 college students newly arrived in Mexico City, the drug, phthalylsulfathiazole, reduced the incidence of this common tourists' bane by 50 per cent, the medical group reported in the May 5th Journal of the American Medical Association.

Another antibacterial drug, neomycin sulfate, tested among college students in Mexico City, also reduced the incidence of the disease, according to B. H. Kean, M.D., William Schaffner, B.S., Robert W. Brennan, A.B., and Somerset R. Waters, B.E.

The cause of travelers' diarrhea is not known, but the effectiveness of these antimicrobial agents lends support to the suggestion that bacteria may be involved.

Mexico was selected as the site for the investigation because of the prevalence of tourist diarrhea among visiting students and because educational and governmental officials cooperated completely.

Two studies were conducted, one in the summer of 1960, the other in the winter of 1960-1961. The students were given either a placebo (a medicinally inactive pill) or one of the two active drugs in pill form to be taken for two weeks. Among 168 students taking the placebo, 23.8 per cent suffered the illness, the researchers reported. Of 137 taking neomycin, 16.1 per cent became ill and of 168 taking phthalylsulfathiazole, 11.9 per cent became ill.

The effectiveness of the antibacterials in preventing moderate and severe forms of the syndrome also was ascertained. Of 168 students receiving the inactive pill, 17.3 per cent suffered more severe symptoms. Of the 137 receiving neomycin, 5.1 per cent were more seriously affected and of the 168 students receiving phthalylsulfathiazole, 6.6 per cent fell into the more severe category.

No harmful side effects were observed with either drug during the study, the researchers said. However, they stressed that those taking drugs were young, healthy, free from any drug allergy and were subject to daily scrutiny while the drug was administered in low doses for only two weeks. "It requires no great medical sagacity to predict that if such drugs are administered without adequate precautions to the half-million annual visitors to Mexico, toxic symptoms will occur."

Aniridia with Microcornea

Report of a Case

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A rare combination of congenital anomalies of the eyes is presented.

ANIRIDIA is usually characterized by being associated with aplasia of the macula, bad vision, nystagmus, and often strabismus. Often there may be opaque areas of the cornea, lens opacities, and glaucoma is common. Aniridia has been reported to be associated with many other abnormalities such as polydactylia, oligophrenia, dyscranias, dysostosis of the skull and face, malformations of the ears and extremities, and hydrocephalus. It has been found associated with a coloboma of the iris in the other eye, in association with microphthalmia, anophthalmia, ectopia of the lens, and pupillary ectopia.

Aniridia is a colobomatous disease. It is explained by most authors as due to a faulty development of the optic cup. It is thought that the development of the iris just stopped at the 70-80 mm. embryonic stage (11th to 12th week of intra-uterine life).

The aim of this paper is to report a case of bilateral aniridia associated with bilateral microcorneas.

Case Report

Miss T. S. was a 19 year old colored female who was first seen during September 1961, with the history of having had "dancing" eyes and poor vision ever since being born. She stated that she had had no other serious illnesses in her life and that her father and mother were perfectly normal; however, she did say that one of her first cousins had the same type of eyes. She was the only child in her family.

A general physical examination showed this patient to be normal in every way except for her eyes and a definite mental deficiency.



Fig. 1. Ninteen year old colored female showing slight bilateral ptosis and small corneas of 9 mm. bilaterally in the horizontal meridians. In addition she had glaucoma and congenital absence of the irides. (aniridia)



Fig. 2. This photograph shows the small cornea, the complete absence of the iris, and the cloudy corneal opacification and vascularization at the limbus.

X-rays of the skull and chest were normal.

A hematocrit was 42%, a two hour post prandial serum glucose was 75 mg% and a white blood cell count was 6,541 with a normal differential. A serology was normal. A routine urine was negative.

Ophthalmic examination showed a slight ptosis of both lids bilaterally. The visual acuity was counting fingers at six feet in both eyes. An attempted refraction did not improve the visual acuity.

There was a bilateral pendular nystagmus and the rotations of the globes were full without any ocular deviations. The corneal diameters measured 9.0 bilaterally in the horizontal meridians.

A slit lamp examination showed some fine vascularization in both corneas and slight corneal opacification which was diffuse and more pronounced at the limbus in both eyes. The lenses showed small punctate opacities which were white and mostly in the posterior subcapsular areas of both lenses.

The size of both globes looked normal. Ophthalmoscopy revealed good red reflexes in both eyes but due to corneal, lens, and vitreous translucency fundus detail could not be seen in either eye.

The intraocular tension in the right eye was 3 units with the 7.5 gram weight, the intraocular tension in the left eye was 4 units with the 7.5 gram weight.

Genioscopy showed an inability to see any iris at all in both eyes. However, the iris root was hard to see due to the fact that both corneas were partly opacified.

The final diagnosis on this patient was bilateral microcornea; bilateral aniridia, and glaucoma with mental deficiency.

The cousin which this patient mentioned as having the same type eyes was not examined. The parents of this patient presented, however, had normal eyes. This patient is presented because of the rarity with which microcornea and aniridia are seen together. Although this patient probably represented a familial type of aniridia with microcornea this could not be proved because the other member who was affected in the family by history was not examined.

Summary

A 19 year old colored female with aniridia and microcornea was presented in this case report. In addition she had bilateral pendular nystagmus with glaucoma. Although it was thought from the history that these traits were familial it was not proved.

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Gluten Bread Not a Calorie Reducer

There's no advantage in using gluten bread on a weight-reduction program, according to Philip L. White, Sc.D., secretary of the Council on Foods and Nutrition, American Medical Association. Gluten bread contains about the same number of calories as ordinary bread.

Writing in the AMA-published Today's Health magazine, Dr. White said gluten bread should contain at least 25 per cent gluten, an important wheat protein. For this reason, such bread has a high protein content.

Public Health . . .

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

Mental Retardation

The mentally retarded child presents a unique problem to his family and to the community; and to those who would help him, he presents a challenge.

Mental retardation appears in varied forms. It encompasses all degrees of retardation from the child who can never learn personal care to the child who is slightly subnormal and because his status often goes unrecognized, meets frustrating failure in his attempts to function on a level with normal children.

How large a problem is mental retardation? Most authorities estimate that out of every 100 babies born about three will be mentally retarded. In round figures about 3,000 potential mental retardates were born to Virginia residents last year. These children are a matter of concern to their families, to the medical profession and to society in general. What becomes of them depends upon the attitudes and actions of many individuals and groups.

In the fall of 1957 a program to assist mentally retarded children was begun in Virginia under the guidance of the State Department of Health. Prior to that time a Consultation and Evaluation Clinic under private auspices was functioning in Richmond. By the summer of 1958 two other clinics, one at Norfolk and one in Arlington were established. In January of this year a fourth clinic at Roanoke was begun. These clinics function for the purposes of consultation, evaluation, diagnosis and treatment recommendations for those children thought to be mentally retarded.

Clinic personnel consists of a pediatrician, a psychologist, a social worker, and a nurse. Other members of the medical and associated professions are available to the clinics on a consultive basis.

Each case is thoroughly worked up from every area that bears upon the problem. All family and personal history that can be obtained prior to the first visit is assembled and reviewed. The parents are requested to be present at this first visit as mental retardation is a problem that concerns the whole family and not the patient alone.

The child is examined by the pediatrician and psychologist, the parents interviewed by the same persons as well as the social worker. Frequently, additional consultation is required for the patient. When all histories, examinations and tests are completed and at hand the whole is studied by the staff in conference; a diagnosis made and recommendations for care suggested. The parents are informed of the results of the conference and a transcript of the case is sent to the referring party. Arrangements are made at this time for a re-evaluation at a future date.

Patients may be referred to the clinics by physicians, health departments, social and welfare agencies, parents, schools and other concerned groups or individuals. No means tests is requested, or made, and no charge incurred for services performed. When the referral is from a source other than the family physician he is notified, with the permission of the parents. Doctors make the largest number of referrals.

The advantages of early diagnosis and starting of treatment cannot be over-emphasized. There is every reason for an evaluation as soon as the possibility of retardation is suspected. Nothing is gained and much may be lost if a "wait and see" or "grow out of it" course is followed. Infants less than a year of age are not infrequent patients, and the upper age limit for acceptance is through the eighth year.

The local health department for the area in which the patient resides has the information and facilities to assist the physician and family with each case. Instruction for care, training, teaching and education of the patient; information on available facilities, local regional and state; and assistance in understanding and help in solving many personal and social problems are some of the aids the local health department has to offer.

Since three of the clinics are located in the eastern section of the State and the fourth, since January, in Roanoke, cases, though widespread, are predominantly from the eastern area. Patients are residents of forty-three counties and twelve cities.

From October, 1957 to June, 1962, 2,217 patients had been seen at the clinics. Re-evaluations had risen to 737. This is double the 1959 re-evaluation case load in two clinics and triple the 1959 case load in a third clinic. Males outnumber females in each clinic about 1½% to 1%.

It is well known that the majority of mental retardation cases are born with the defect. Prevention of retardation, therefore, can be achieved best by early, continuous, knowledgeable obstetrical care of the pregnant patient.

One of the brightest stars in the field of prevention of mental retardation has been the perfection of easily administered tests to detect phenylketonuria. This test may assist in finding those who have the disease, and since diet is an important item in the handling of these patients, the local health department may assist in this area where there is a need. This is done in conjunction with the child's physician, state or local nutritionists, and public health nurses.

Present knowledge does not permit the prevention of all cases of mental retardation and there are numerous such unfortunate children living in Virginia who need services. The goal of the State Department of Health is to work toward improving the lot of these individuals as well as toward the prevention of as many new cases as possible.

Monthly Report of Bureau of Communicable Disease Control

	Aug. 1962	Aug. 1961	Jan.-Aug. 1962	Jan.-Aug. 1961
Brucellosis	0	1	10	14
Diphtheria	1	1	10	11
Hepatitis	59	97	912	1045
Measles	109	189	9214	11622
Meningococcal Infections	5	2	51	34
Aseptic Meningitis	13	19	29	36
Poliomyelitis	4	5	7	5
Rabies (In Animals)	11	8	103	161
Rocky Mt. Spotted Fever	14	11	33	40
Streptococcal Infections	276	336	9662	4572
Tularemia	1	4	12	10
Typhoid Fever	2	7	15	9

Mental Health . . . .

CHARLES M. POSER, M.D.

Epileptic Equivalents

Epilepsy can be easily diagnosed on a purely clinical basis since the classic grand mal convulsion is easily recognized by its dramatic and violent interference with the patient's normal activities. However, a number of manifestations which are epileptiform in nature are not so easily recognized. Encountered more frequently in children than in adults, these "epileptic equivalents" seldom point to the brain as the source of damage. It is in these instances that the electroencephalogram becomes a vital diagnostic aid.

Children afflicted with epileptic equivalents usually are seen by a number of physicians who investigate various systems, as well as the psyche, before learning the true nature of the disturbance and establishing the correct diagnosis. Manifestations vary so widely that it is often impossible to attain the diagnosis of epilepsy without first ruling out disease of the organs which are superficially affected. Nevertheless, these extremely important diagnoses cannot be accurately made without an electroencephalographic recording to verify the suspicions of the clinician.

The following are common types of epileptic equivalents encountered in our experience at the University of Kansas Medical Center.

Headache

The relationship between migraine headache and epilepsy has intrigued clinicians for many years. The familial incidence of migraine has been well established; that of epilepsy rests on more tenuous grounds. Some purists have stated that true migraine always starts before puberty, while many clinicians agree that almost any type of episodic severe headache in childhood, especially if associated with nausea and vomiting, must be classified as migraine in type, even though some of the classic clinical manifestations are missing.

In a group of 15 children with some form of episodic headache and a family history of migraine attacks, the electroencephalogram revealed abnormalities in approximately 90 per cent of the cases. These children were then given anticonvulsant therapy, usually phenobarbital, administered in a single dose at bedtime. This resulted in dramatic relief of the headaches over long periods of time. Children with migraine headaches are often difficult to treat because the prodromes usually go unrecognized and the headache may occur without such premonitory symptoms.

Adults with a well-established clinical syndrome of migraine seldom demonstrate electroencephalographic abnormalities. After trial with the usual ergotamine preparations, anticonvulsant medication consisting of dilantin and phenobarbital has had excellent results in some instances.

Enuresis

The etiology of enuresis has never been established despite the proposal of numerous theories having psychiatric and organic bases. In some children with enuresis, the electroencephalogram demonstrates abnormalities and anticonvulsant medication helps alleviate this annoying symptom. Occasional bed-wetting, not the fairly consistent nocturnal wetting seen in enuretics, is sometimes the first and only manifestation of an epileptiform disorder. This may occur months or years before an actual clinical convulsion.

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Read in part at the Lynchburg State Training School, Colony, Virginia, on April 20, 1962.

Mental Dullness

Occasionally, patients with cerebral dysrhythmias do not have any overt clinical manifestations, but instead experience a general depression of intelligence, difficulty in mental development and a hindering of the normal learning process. Some children have been called mentally retarded until an electroencephalogram has revealed severe cerebral dysrhythmia. Children with known organic damage to the brain may be mentally inhibited because of cerebral dysrhythmia. Anticonvulsant medication often improves the learning and functioning abilities of such patients.

Extremely frequent petit mal or actual petit mal status may be quite difficult to detect without the help of the electroencephalogram. Children with this disability seem inattentive and may be mistakenly thought to have a low level of intellectual function. Even in the patient with the usual type of petit mal who has twenty to sixty attacks per day, the correct diagnosis may be missed because of the fleeting nature of the attacks, usually lasting 5 or 10 seconds. Many of these children are called daydreamers or poor students until the true nature of their condition is recognized and proper treatment instituted.

Hyperactive Behavior in Brain Damaged Children

The hyperactive, destructive behavior of children with severe brain damage is often difficult to understand until an electroencephalogram reveals electrical abnormalities which are never manifested by recognizable epileptiform disturbances. Such children may often improve considerably with the judicious administration of anticonvulsant medication, their aggressive or violent behavior subsiding in a dramatic manner.

Behavior Disturbances and Miscellaneous Manifestations

The study of children and young adults with behavior or psychiatric disturbances is of particular interest. The following brief case histories aptly illustrate the value of the electroencephalogram in correctly identifying epileptic equivalents in such cases. All these patients were placed on anticonvulsant medication which completely alleviated their symptoms.

Case 1. This ten-year-old boy was not progressing satisfactorily in school and was not participating fully in Cub Scout activities. He daydreamed a great deal and even though he had never fallen, he had "blank periods" during which he seemed to lose consciousness momentarily. He appeared hesitant and slightly withdrawn but responded well when asked to take part in group activities. His EEG revealed a well-organized basic record. During sleep there were six or seven bursts of multiple spike and dome discharges lasting from one to ten seconds. Some isolated spike-dome discharges also were seen in the right temporal area.

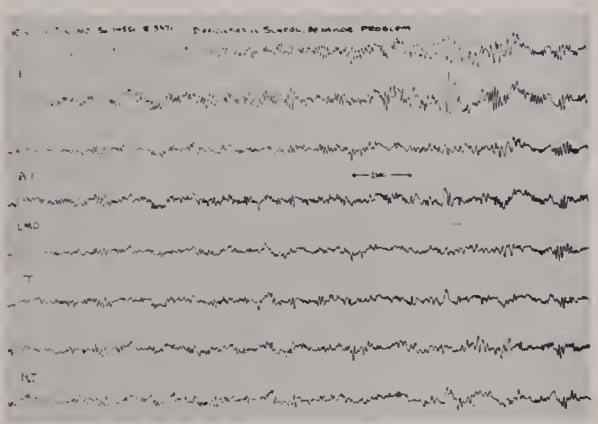


Fig. 1. 14-year-old boy with behavior problems and difficulties in adjusting to school. Monopolar recording, sleep, low mid-occipital reference. Right frontal spike-wave discharge.

Case 2. This 12-year-old boy was very distractable, inattentive and at times acted confused. He would suddenly stop talking, stare into space, his arms and legs would jerk, and then he would resume the conversation. He had repeated several grades in school, although sometimes he did very acceptable work. He often appeared confused and unable to comprehend. He was reported to be extremely irritable at times. His electroencephalogram was poorly organized.

During the wake period, spikes and irregular slowing occurred in the right occipital area; during sleep frequent discharges of positive spike complexes occurred.

Case 3. This 9-year-old girl had frequent episodes of stomachache which began without any predisposing cause other than nervousness. One episode started while she was doing schoolwork and she suddenly began

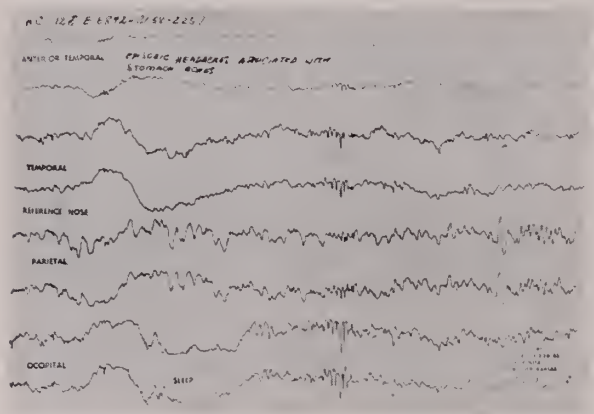


Fig. 2. 12-year-old boy with episodic headache associated with stomachache. Monopolar recording, sleep, nose reference. 14 per second positive spike complexes bilaterally.

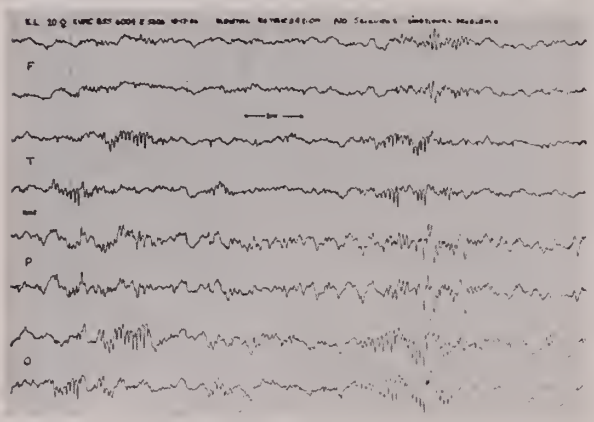


Fig. 3. 10-year-old girl slightly mentally retarded, with severe emotional problems. Monopolar recording, sleep, nose reference, 14 per second positive spikes bilaterally.

turning the pages of her book very quickly. When her mother asked her what she was doing, her reply was incoherent. Her mother noticed a blank stare for two or three minutes. The child then said she felt all-right and she went to sleep for approximately 20 minutes. She had total amnesia regarding all such episodes.

A work-up four years ago revealed a "spasmodic stomach" but she has never vomited or had diarrhea or other manifestations of gastrointestinal disturbance. Her first episode, a grand mal convulsion, occurred at the age of four when she had measles and a temperature of 105°. Her mother's sister, 24 years of age, has had epilepsy since the age of 12. The electroencephalogram was reasonably well organ-

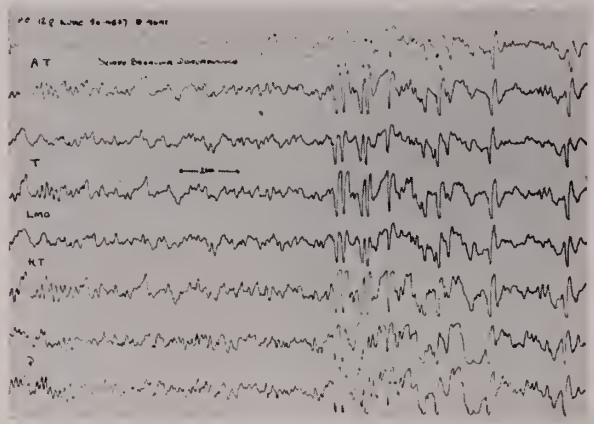
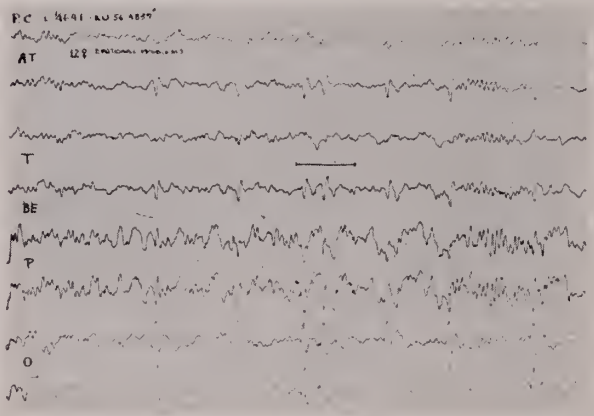
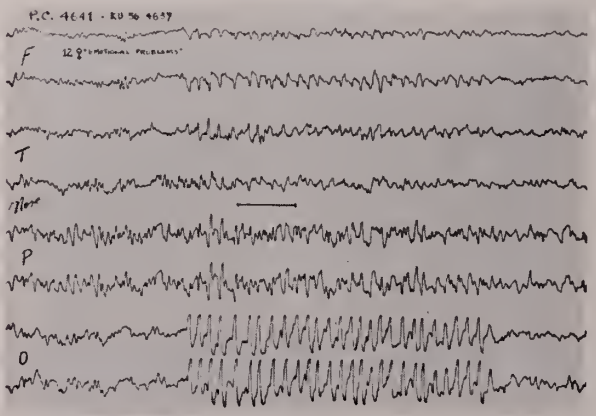


Fig. 4. 12-year-old girl with severe emotional problems and behavior disturbance. Monopolar recording, sleep.
a) low mid-occipital reference, bilateral synchronous multiple spike discharges.



b) both ears reference, right temporal spike discharges, also occurring in both occipital leads.



c) nose reference, paroxysmal burst of multiple spike discharges in both occipital leads.

ized. Over-ventilation was normal. Frequent isolated spikes occurred from both temporal regions, more from the left. Some left temporal slowing was seen. The impression was abnormal electroencephalogram.

Case 4. This 22-year-old man was inclined to be rebellious, quick-tempered and very moody. The temper episodes had become more violent and more frequent. He had bad nightmares, walked in his sleep and once jumped through the window screen of an upstairs porch during this night walking. His electroencephalogram was well organized but showed a fairly consistently irregular slow wave abnormality in the right temporal area.

In a study of children with epileptic equivalents we observed the following abnormal behavior manifestations.

1. Episodic occurrence of dream-like states
2. Outbursts of anger
3. Argumentativeness and hyperactivity
4. Episodes of violent uncooperative behavior
5. Temper tantrums associated with cyanosis in a child with cardiac anomaly
6. Episodes of automatic behavior and possible narcolepsy
7. Syncope followed by a generalized tingling
8. Intermittent abdominal pain
9. Crying and shaking spells
10. Periods of blankness and total disorientation
11. Fainting, dizziness and blackout spells
12. Episodes of numbness involving both sides of the body
13. Impulsive behavior
14. Chronic runaway
15. Writing bad checks
16. Vomiting followed by deep sleep and amnesia for the entire episode
17. Slow learning
18. Poor school adjustment
19. Destructiveness and possible juvenile schizophrenia
20. Attacks of unlocalized pain
21. Enuresis
22. Hyperactivity and dissociative type of disorder
23. Insomnia and possible psychoneurosis of an unclassified type
24. Sudden tremulousness of face, left arm and leg
25. Episodes of nausea and vomiting
26. Lethargy

Many of these children had undergone long and complex diagnostic workups in child guidance centers and psychiatric clinics. Some, along with their parents, experienced psychiatric treatment for months or years. Some were diagnosed as mentally retarded or suffering from severe emotional problems; many were classified as behavior problems. The bizzare clinical manifestations and symptomatology often led to the erroneous diagnosis of hysteria or even schizophrenia. Although most of the children had no history of an overt convulsion, the correct diagnosis might have been discovered in some of them on the basis of other more subtle manifestations of epilepsy.

The electrical manifestations encountered in these patients were extremely variable, ranging from atypical spike-dome foci and paroxysmal bursts of irregular slow activity to the irregular occurrence of the so-called 14 and 6 per second positive spikes.

Although controversy still exists regarding whether the latter type of electrical abnormality is clinically significant, most investigators agree that it is a pathologic phenomenon occurring primarily in children and usually associated with the type of epileptic manifestations described in this paper. Gibbs and Low have said, "In spite of the wide range of symptoms that are associated with this condition, the clinical story is sufficiently characteristic that the physician is often able to predict that 14 and 6 per second spikes will be found in the electroencephalogram."

In an electroencephalographic study of 829 patients ranging in age from one to 20 years, who were examined in the EEG laboratory of the University of Kansas Medical Center, 74 per cent were abnormal. In an-

other group of 146 patients referred to the laboratory because of so-called psychiatric problems, the same percentage were abnormal. Positive spike complexes were observed in 18 per cent of the first group and in 31.4 per cent of the psychiatric group.

Kellaway and his associates reported on wake and sleep EEG's performed on 950 normal children. They observed the 14 and 6 per second positive spike complex in 2.2 per cent, a figure which accords well with those of two other large series. From their analysis of the records of 200 children under 16 years of age who demonstrated this pattern, these investigators concluded, "The clinical correlates of the abnormality are primarily recurrent paroxysmal episodes of autonomic pain or behavioral types." They also stated that the pattern itself is not a seizure discharge but a sign of a disorder which may have an epileptiform manifestation.

Though other electrical abnormalities do occur, the 14 and 6 per second positive spike complexes in our experience seem to be the most frequent manifestation of epileptic equivalents in children. These complexes occurred as the only abnormality in approximately 50 per cent of our cases and as an associated abnormality in the other half.

It is hoped that electroencephalographic recordings will be obtained in all children who exhibit seemingly bizarre paroxysmal behavior disturbances or other symptoms which are poorly explainable on the basis of other organic or functional disorders. This simple, painless and inexpensive procedure may save both child and parents considerable time and expense. Sleep recordings should be made since the wake record in many patients will not demonstrate abnormality. In addition, records should be obtained by the monopolar technic since the 14 and 6 per second positive spike does not appear in the bipolar recording. For patients who demonstrate epileptic equivalents, anticonvulsant therapy may produce excellent results.

Summary

Headaches, enuresis, mental dullness, bizarre somatic and autonomic complaints and, in particular, different types of behavior disturbances may be the clinical manifestation of an otherwise unrecognized epileptiform disorder.

The electroencephalogram may be of great help in establishing the correct diagnosis thus not only sparing the patient fruitless and expensive somatic and psychiatric investigations but allowing for prompt and beneficial institution of appropriate anticonvulsant medication.

A particular EEG pattern, the 14 and 6 per second positive spike complexes, would seem to be found most commonly in children and adolescents with behavior disturbances.

A high index of suspicion and an electroencephalogram should solve the riddle of the epileptic equivalent in most instances.

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Editorial . . . .

Some Duodecennial Reflections on the Standard Barium Enema Examination

A TIME COMES in the professional life of every doctor when he should allow himself a pause for stock-taking, and a *culpa mea*, if necessary. All the medical aspects of his life obviously cannot be inventoried at the same time. Possibly some inner sense clamors for the most pressing.

This particular inventory concerns the standard barium enema examination. We have always approached this study with trepidation: the reward for success is great; the penalty for failure, equally great. Without hesitation, it can be said that the barium enema has been involved in more serious diagnostic errors in our department than any other examination. The following lessons might be drawn from this experience:

1. Faulty preparation is the single commonest cause for error. *The roentgen ray may find it impossible to distinguish between feces and tumor.* The faults in the poor preparation may lie with the patient when prepared at home, with the nursing personnel when prepared in the hospital, or with the procedure itself in either case. As examples, we have known the preparatory enemas to be given with the patient sitting upon the commode; Neoloid to be given in half the required dose because of failure to recognize its composition; the amount of castor oil to be wacked away almost to the vanishing point by several ingenious methods.

The patient or the nursing personnel are given the following form of simple instructions:

The Day Before The Examination:

Lunch: Clear liquids only.

Dinner: Clear soup, strained orange or grapefruit juice, tea or coffee with a little milk but no cream. Gelatin dessert if desired.

At about 7:00 P.M., take 1½ ounces of Fleet's Phospho-Soda diluted in a glass of plain water, followed shortly by a second glass of plain water.

The Morning of the Examination:

Nothing to eat or drink.

Take a Fleet's enema (disposable unit obtained at a drug store) at about 7:00 A.M., lying on left side. Turn from side to side. Retain for at least 5 minutes before evacuating.

Report to X-Ray Department at __ A.M.

Despite understandable reluctance, we have admitted to the wisdom of the Swedish school, and ourselves do the final cleansing water-tannic acid enema in the x-ray department. This most important preparatory procedure is more than worth the time, physical facilities, and expense required. When the virtues of a properly prepared colon are demonstrated to the personnel of the department, they take as much pleasure in its achievement as we.

This presently used schedule has met with much greater acceptance by the patients than the older routine of "castor oil the night before, and repeated enemas the morning of the examination until returns are clear".

2. The barium mass in the colon must be adequately penetrated. This is effected by the use of x-rays generated at 120,000 or more volts, and of a barium suspension of optimal density. *Veriopaque* (General Electric) used in a suspension of specific gravity of 1.200 (determined by a hydrometer graduated from 1.000 to 2.000) is satisfactory. This may be varied to suit personal preference but in no case should it be so dense, and the ray so unpenetrating, that the colon appears to be filled with concrete; the overlapping loops must be seen through.

3. There has been too much renunciation by the radiologist of his responsibility in the diseases of the rectum. Despite the truth that the rectum is not his primary responsibility, this should not deter him from making diagnostic contributions when these are readily available, especially since so many patients are referred to him without a previous rectal examination, digital or endoscopic, and since more than 80% of the cancers of the large intestine are in its distal portion. (Since some 10 to 15% occur in the cecum and right colon, only a relatively small percentage are found in the transverse colon and its flexures; it is reasonable that attention be directed to the several segments of the large intestine commensurate with their frequency as cancer-bearing sites.) Nor

should it be forgotten that rectal abnormality may be demonstrated roentgenologically even in face of a "normal" direct examination. The roentgenologist can best contribute to diagnosis of rectal and recto-sigmoid cancer by a routine lateral view of the barium-filled structure. The Chassard-Lapiné view, in addition, is recommended as routine in all patients who present with rectal bleeding, or when fluoroscopy has been unable to unravel a redundant sigmoid. (The patient sits upon the x-ray table, with the lumbar spine acutely flexed, and both feet over the side resting upon a chair.) He may see filling defects in either of these two special views that cannot be visualized on any of his regular sagittal and oblique studies. In special cases, these two projections done after evacuation may further help in arriving at the diagnosis. An inflatable catheter may inhibit adequate visualization of the rectum, is not without dangers, and is not used.

4. Technique. The barium suspension should best be cold to reduce irritability. Fluoroscopic and radiographic observation of the sigmoid is necessary in both oblique projections, despite how good visualization may appear to be in only one: a small annular lesion may be completely overlooked when seen axially, and not in profile. Tannic acid in the barium enema makes for a better evacuation film; however, too much confidence should not be put in the normal post-evacuation study in excluding disease; only that which is seen has significance, not that which is not seen. The fluoroscopic and radiographic examination of the debilitated or potentially incontinent patient done upon a radiolucent bedpan of aluminum or plastic will allay everyone's anxiety and make for a better procedure. This simple aid is worth its weight in gold.

5. The barium enema apparatus, including the reservoir, is a potential source of cross-infection. A new, disposable unit should be used for each patient. The radiologist's peace of mind is worth more than its additional cost.

Reflections on the air-contrast study must await another time and another place.

Would that our second duodecennium have more cause for satisfaction with the standard barium enema than our first.

Christian V. Cimmino, M.D., F.F.R.

Fredericksburg, Va.

News....

New Members.

The following new members were received into The Medical Society of Virginia during the month of August:

Giulio Callari, M.D., Arlington
Hartmut Werner Doerwaldt, M.D., Stephens City
Robert Kingston Duley, M.D., Richmond
Frederick Bruce Forward, Jr., M.D., Harrisonburg
Patrick Bruce McNeil, M.D., Winchester
Austin Alexis Herr, Jr., M.D., Alexandria
Allen W. Lane, M.D., Williamsburg
James McKay, M.D., Richmond
Charles Lembo Rickerich, M.D., Arlington
William Rudolph Tabor, M.D., Richmond

Unique Medical Training.



Dr. Stringfellow examines an elderly woman who is suffering from high blood pressure, which is rare among Haitians, but common among Americans, whose way of life is very different.

A young Virginia physician extended his medical training in a unique way this summer. Dr. Charles Stringfellow, a 1962 graduate of the Medical College of Virginia, assisted at a mission clinic on the isolated southern coast of Haiti, thanks to a Smith Kline & French Laboratories Foreign Fellowship awarded by the Association of American Medical Colleges.

Dr. Stringfellow, one of 33 medical students and newly graduated doctors who received Foreign Fellowship grants this year, served at the West Indies Mission. The mission, which is interdenominational, consists of a school, a seminary, an orphanage, housing for personnel and a radio station as well as a clinic.

The young American observed and treated a wide variety of disease conditions, much of which is not ordinarily seen in the United States. In addition to assisting at the mission clinic, Dr. Stringfellow also assisted at the public clinic of the General Hospital in the nearby town of Les Cayes.

Les Cayes is rarely visited by tourists. It is situated on the mountainous western tip of the small Caribbean nation, which lies between Cuba and the Dominican Republic.

This program, which has been described as a "Little Medical Peace Corps", is in its third year and during that time has provided grants for 92 medical students and new doctors to broaden their medical training and experience by assisting at medical outposts in countries of Africa, Asia and Latin America.

Dr. F. Ashton Carmines

And his family left Newport News in August for four weeks of voluntary service in Jordan with the Orthopedics Overseas Division of MEDICO, a service of CARE. He worked in the clinics of hospitals in Jerusalem, Jericho, Amman and Neblus.

The Neuropsychiatric Society of Virginia

Will hold its fall business and scientific meeting in Lynchburg, October 20th. The meeting will begin at 10:30 A.M., and the theme will be The Human Brain versus the Electronic Brain in the Future. Four speak-

ers will discuss the subject and this will be followed by a panel discussion.

Dr. Benedict Nagler,

Superintendent of the Lynchburg Training School and Hospital, has returned after a six weeks tour of Europe. He visited hospitals in London, Antwerp, and Paris.

Dr. W. P. Fletcher,

Covington, has been appointed a vice-chairman of the local 1962 United Fund Campaign. He will work with the business and industrial areas.

Medical Association of the Valley of Virginia.

The fall meeting of this association will be held at the Homestead, Hot Springs, November 23 and 24. Speakers will include Drs. David Hume and Walter Bundy, Richmond; Drs. William Parsons and John Nokes, Charlottesville; and Dr. Bruce Grey, Winchester.

Dr. W. Linwood Ball,

Richmond, has been promoted to brigadier general in the retirement lists of the Virginia unorganized militia. He recently retired from the Virginia Army National Guard after 32 years of service.

Dr. Ann H. Williams,

Virginia Beach, has accepted a position as physician at the Norfolk Naval Shipyard, Portsmouth. She is the second shipyard's woman doctor.

Dr. G. B. Setzler,

Pennington Gap, will serve as chairman of the fund raising campaign in Lee County for the Children's Home Society of Virginia.

New Health Director.

Dr. Andrew Frederick Scheele has been appointed as director of the Prince William County Health Department. He was recently located at Falls Church where he was Surgeon and Medical Director for the Military District of Washington.

Receive Awards.

Drs. John L. Patterson, Jr., and Sami I. Said of the Medical College of Virginia have been given awards by the National Institutes of Health for their contributions in the fields of cardiovascular and pulmonary diseases.

Dr. Yeatman Honored.

More than 300 Fluvanna County residents paid homage recently to their country doctor—Dr. Julian H. Yeatman of Fork Union. They honored him with an appreciation dinner and gifts for his community service of more than thirty years.

Hospital Staff Officers.

Officers of the Obici Memorial Hospital Staff, Suffolk, for 1962-3 are: president, Dr. Charles H. Rawls; vice-president and radiologist, Dr. L. J. Stetson; secretary-treasurer and chief of obstetrics and gynecology, Dr. William H. Rogers, Dr. George J. Carroll, pathologist; Dr. W. Holmes Chapman, Jr., chief of medicine; and Dr. Robert W. Fry, chief of general medicine. Dr. J. E. Rawls, Jr., is the retiring president.

Associate Wanted.

Danville doctor wants associate for general practice with surgery. Salary or percentage leading to partnership. No obstetrics and rare house calls. General practitioner, internist or surgeon acceptable. Write #35, care Virginia Medical Monthly, 4205 Dover Road, Richmond 21, Virginia. (*Adv.*)

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gist. Contact #40, care Virginia Medical Monthly, 4205 Dover Road, Richmond 21, Virginia. (*Adv.*)

Location Wanted.

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Obituary . . . .

Dr. Liggan.

On April 28, 1962, the Northern Neck Medical Association and the County of Lancaster lost a distinguished and beloved friend in the passing of Dr. Lee S. Liggan of Irvington, Virginia.

Active in the general practice of medicine in this section for almost 30 years, he was a conscientious and faithful physician who unstintingly gave of his time and efforts to his patients. He had been in constant attendance to his practice until illness caused him to close his office. It was expected that he could resume his work in a short time when he was struck down by a coronary occlusion.

Lee S. Liggan was born April 17, 1895, in Richmond. He was educated in the Richmond Public Schools, the University of Richmond and the Medical College of Virginia from which he graduated in 1923. He served his internship at old Memorial Hospital and was later associated with the Medical College of Virginia during the period in which he practiced medicine in Richmond.

During World War I he served with the McGuire Unit, Base Hospital Number 45 in France and in World War II he served his County on the Selective Service Board and the Medical Advisory Board.

At Irvington he served as Steward in the Methodist Church, was past president of the Rotary Club, and was a member of the Adams Post Number 86 of the American Legion.

He was a member of the American Medical Association, The Medical Society of Virginia, and had been a member of the Northern Neck Medical Association since coming to this section. He had served two terms as president of the association.

Surviving him are his wife, one son and two grandchildren.



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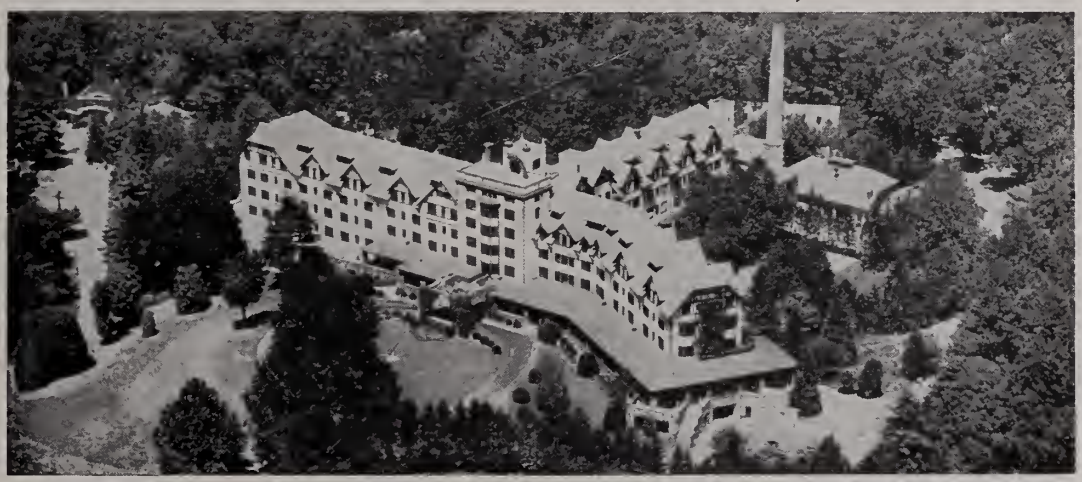
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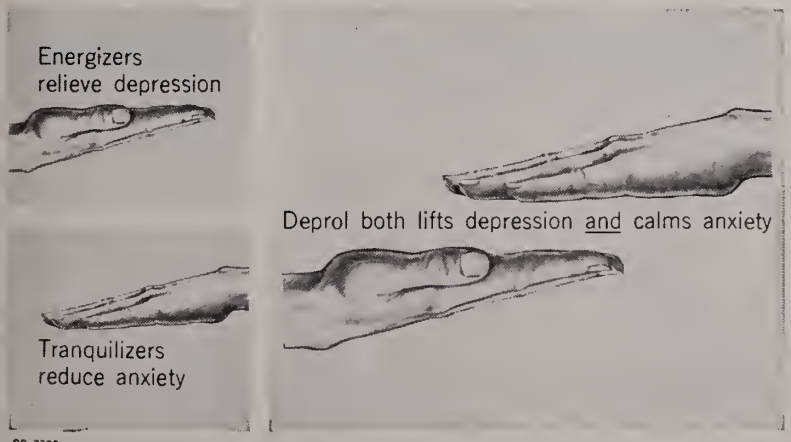
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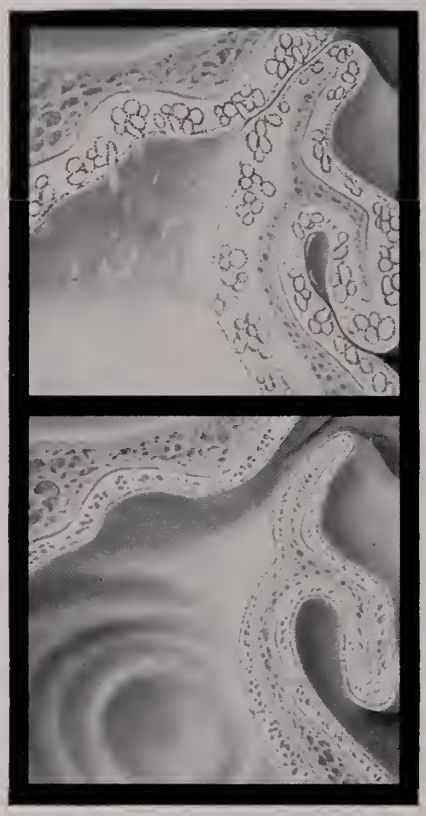
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1. Grant, L. E.: Coryza and nasal sinus infections, **Clin. Med. & Surg.** 42:121, March, 1935. 2. Putney, F. J.: Sinus infection, in Conn, H. F. (Ed.): Current Therapy 1952, Philadelphia, W. B. Saunders Company, 1952, p. 110. 3. Simonton, K. M.: Current treatment of sinusitis, **Journal-Lancet** 79:535, Dec., 1959.

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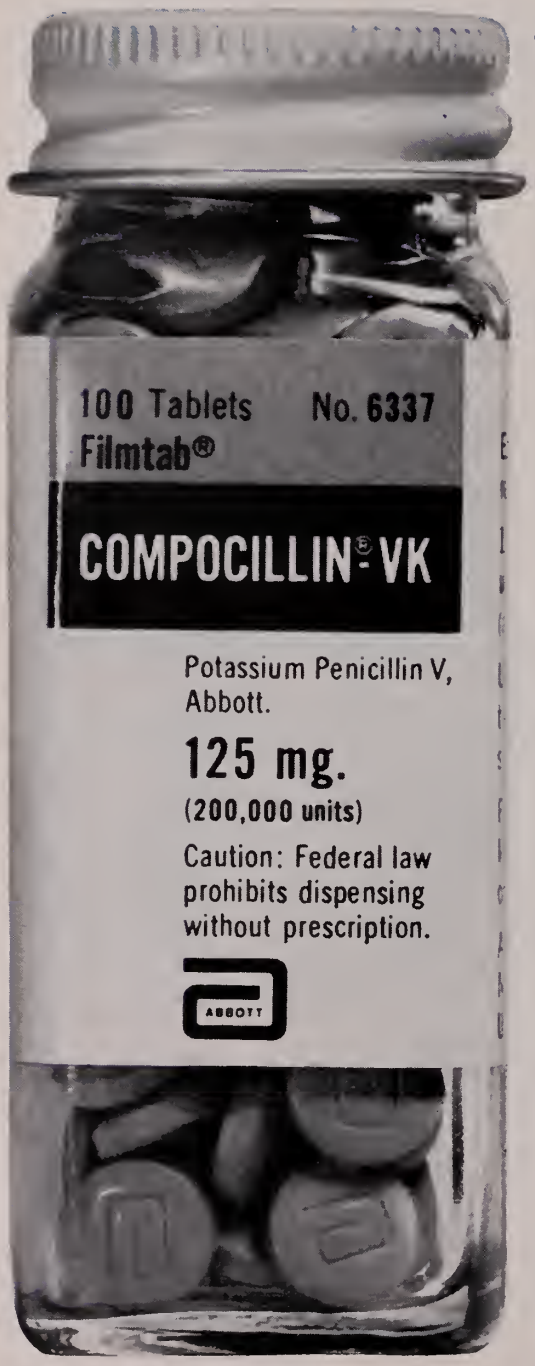
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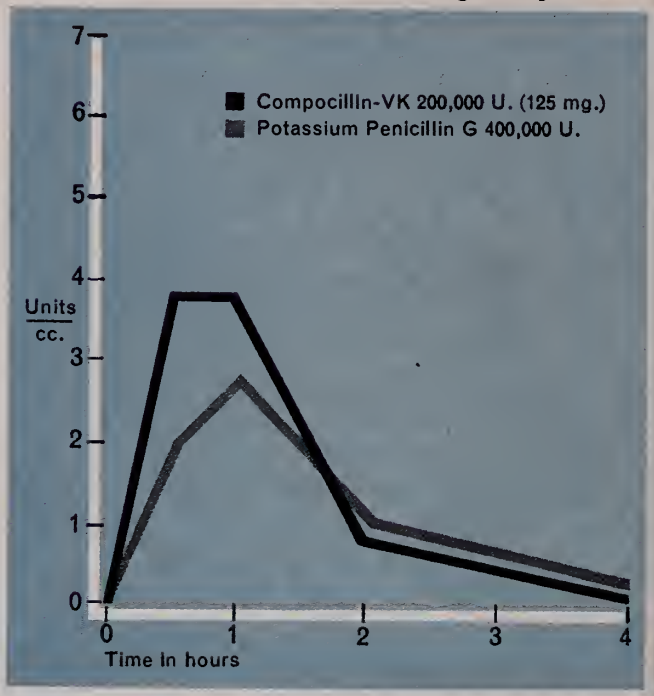
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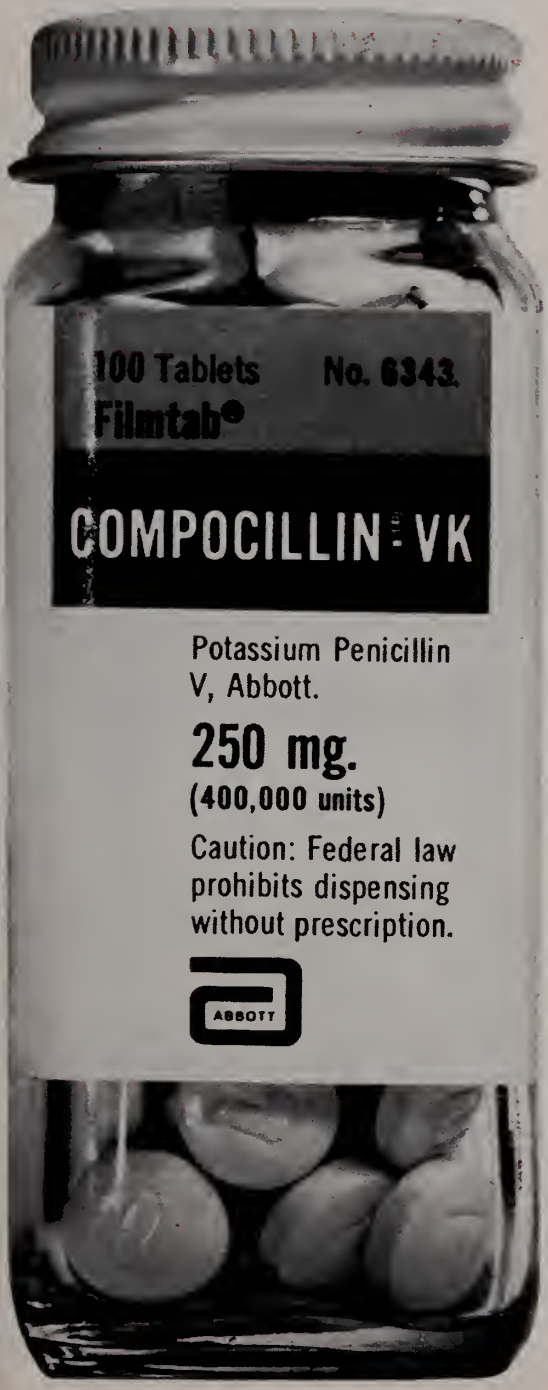
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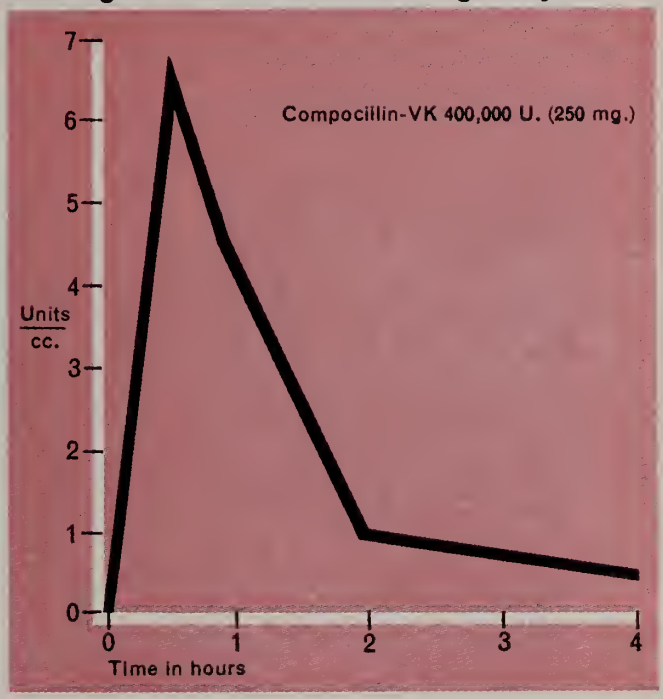
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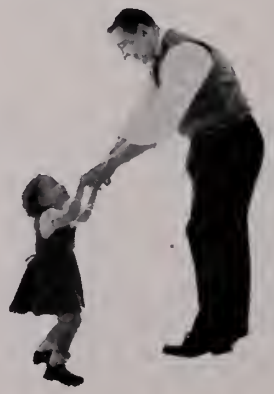
DOSAGE: Adults: Initially 1 or 2 tablespoons from four to six times daily, or 1 or 2 teaspoons after each loose bowel movement; reduce dosage as diarrhea subsides.

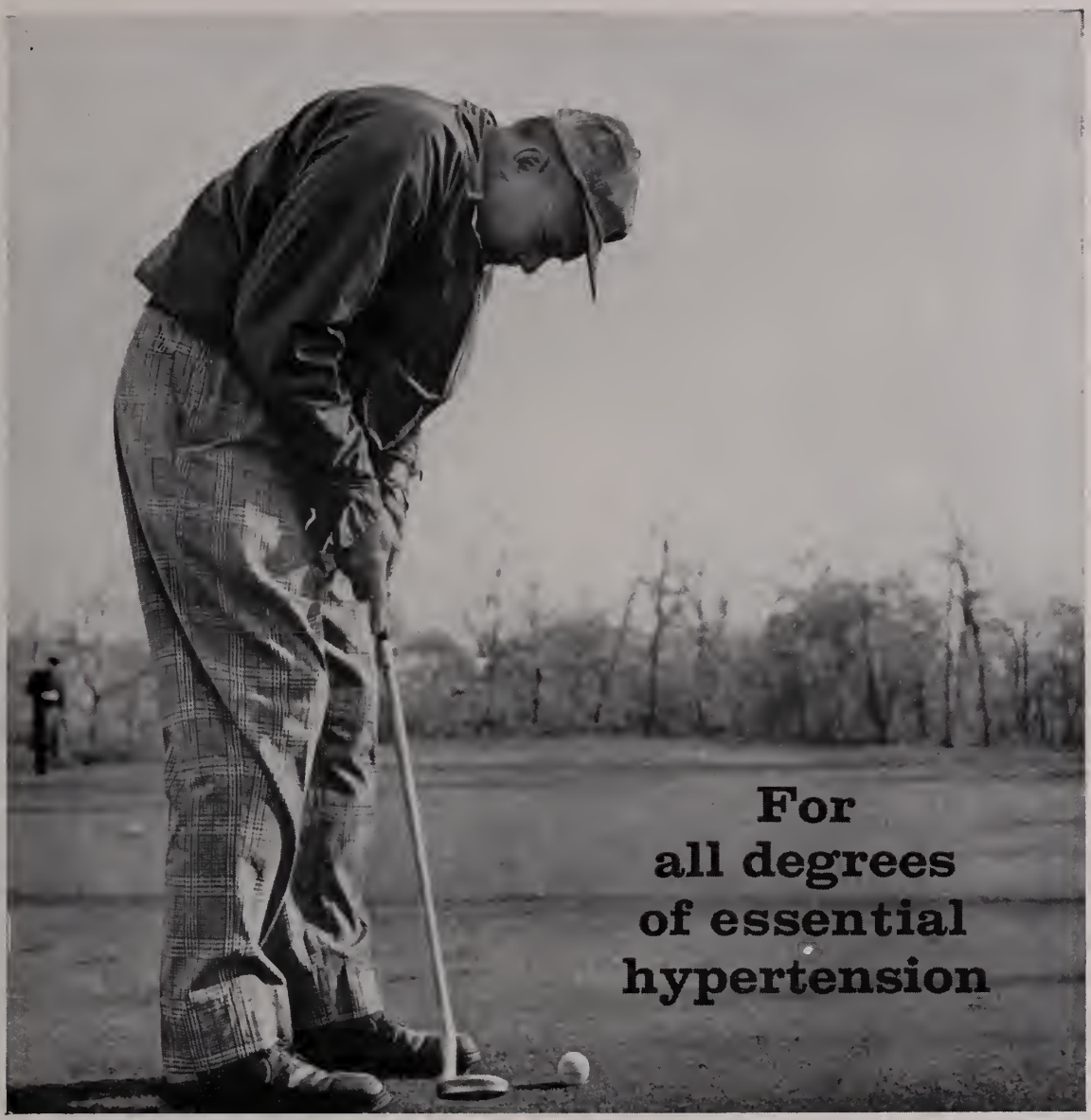
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†Hutchison J. C.: Current Therap. Res. *2*:487 (Oct.) 1960.

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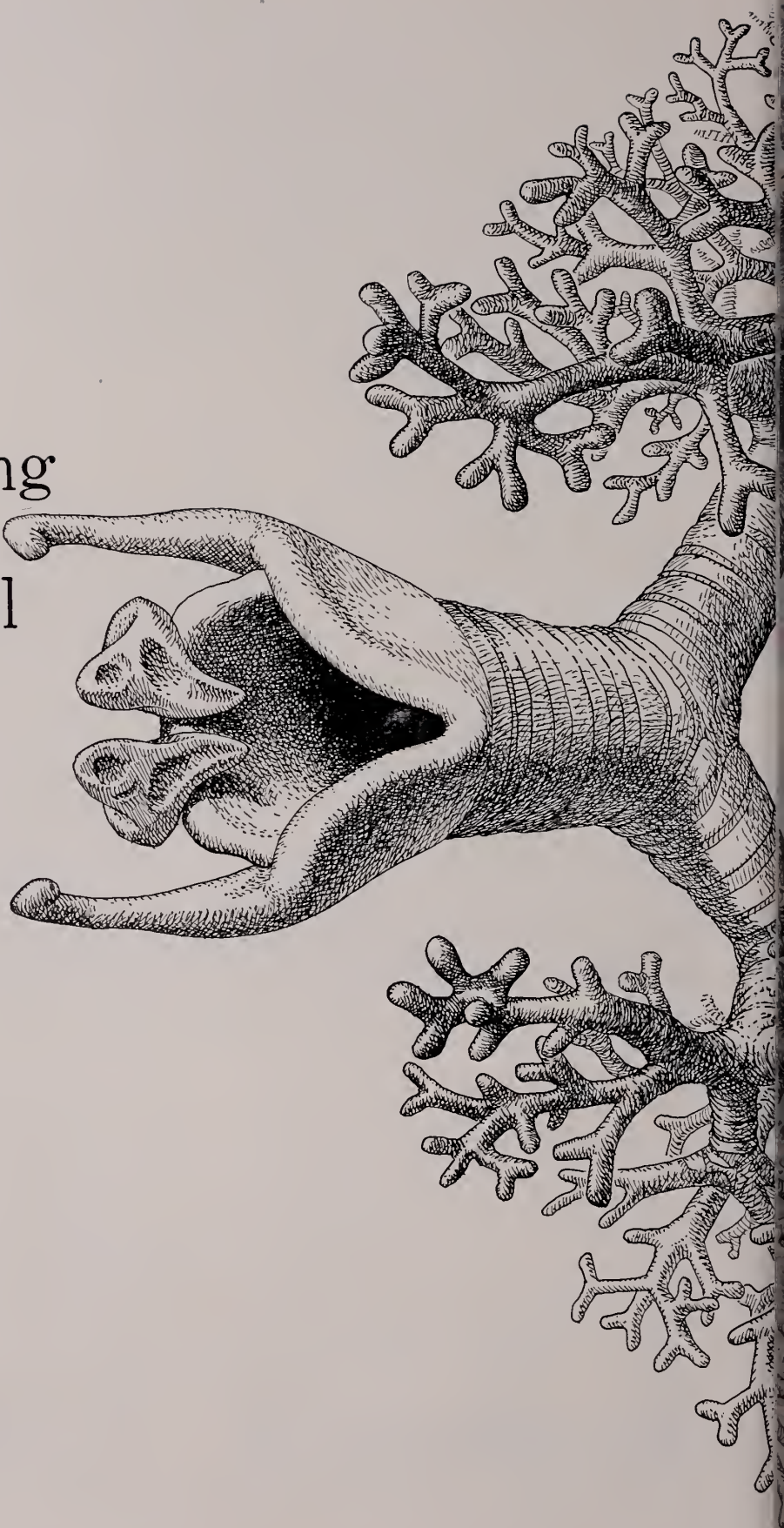
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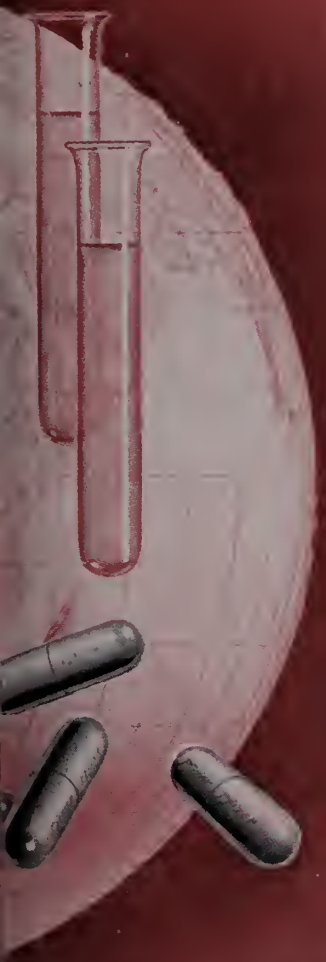
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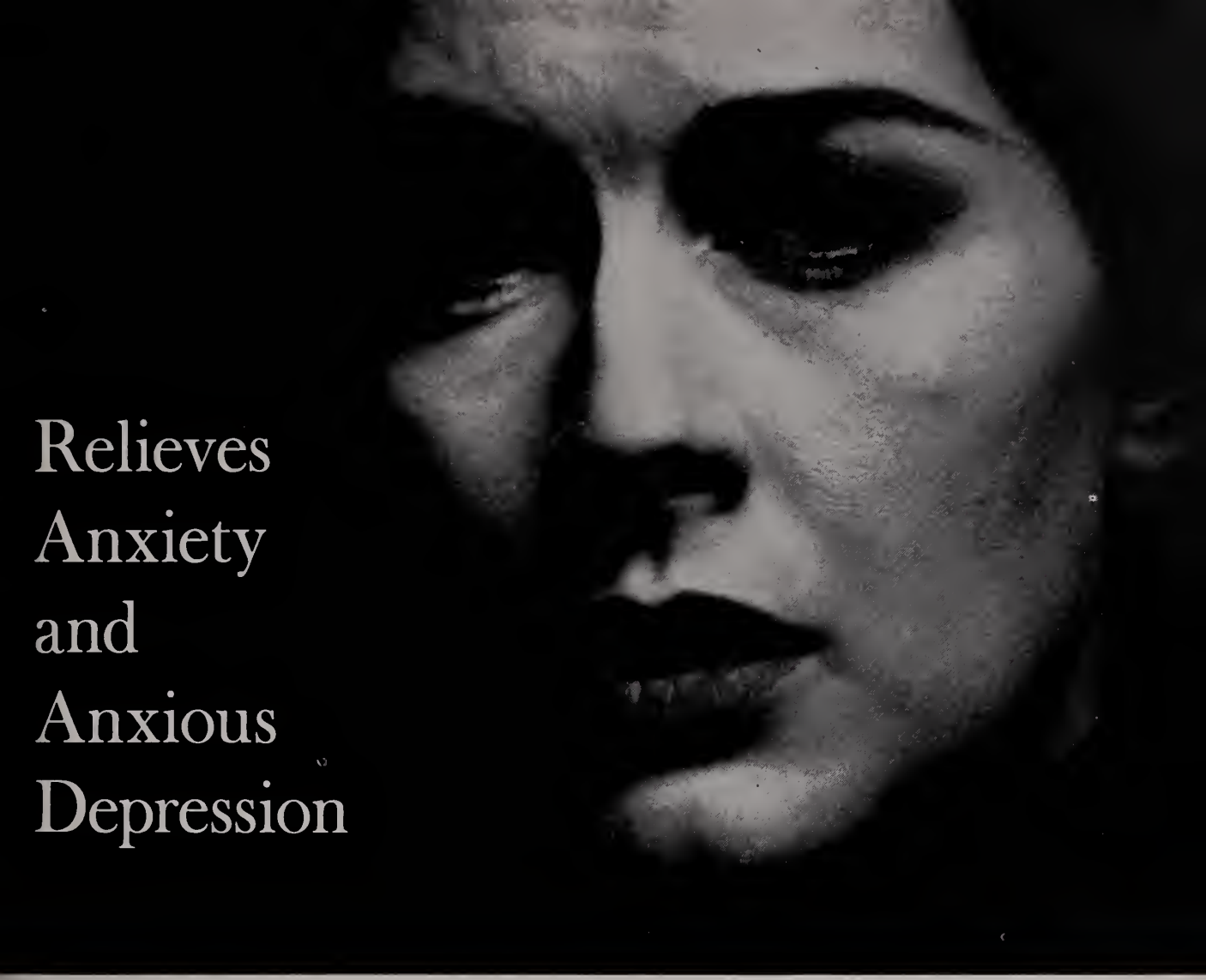
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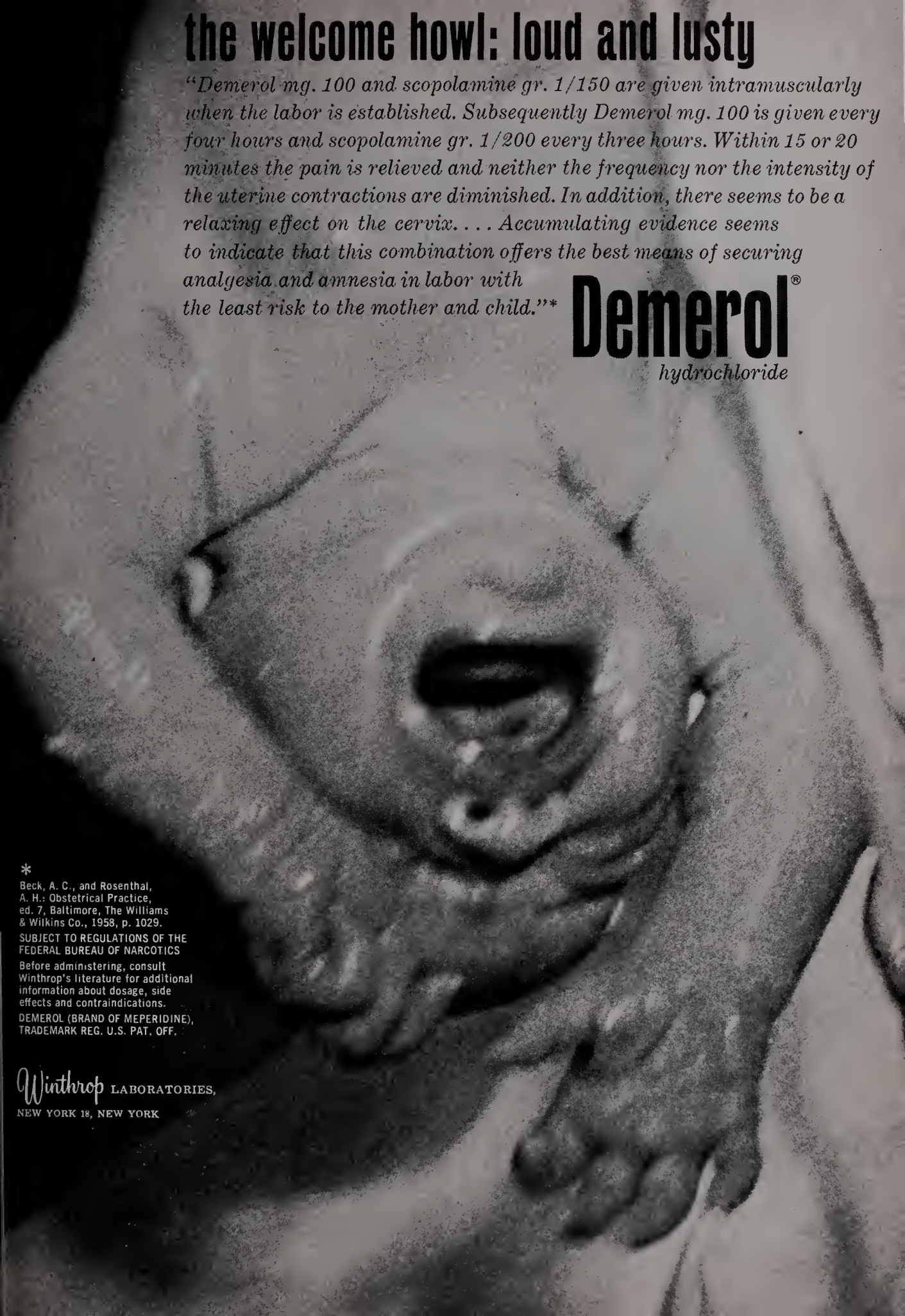
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* Beck, A. C., and Rosenthal, A. H.: Obstetrical Practice, ed. 7, Baltimore, The Williams & Wilkins Co., 1958, p. 1029.

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NOVEMBER, 1962

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REFERENCES: (1) Roseman, E.: Neurology **11**:*912, 1961. (2) Bray, P. F.:* Pediatrics **23**:*151, 1959. (3) Chao, D. H.; Druckman, R., & Kellaway, P.: Convulsive Disorders of Children, Philadelphia, W. B. Saunders Company, 1958, p. 120. (4) Crawley, J. W.:* M. Clin. North America **42**:*317, 1958. (5) Livingston, S.: The Diagnosis and Treatment of Convulsive Disorders in Children, Springfield, Ill., Charles C Thomas, 1954, p. 190. (6) Ibid.:* Postgrad. Med. **20**:*584, 1956. (7) Merritt, H. H.:* Brit. M. J. **1**:*666, 1958. (8) Carter, C. H.:* Arch. Neurol. & Psychiat. **79**:*136, 1958. (9) Thomas, M. H., in Green, J. R., & Steelman, H. F.: Epileptic Seizures, Baltimore, The Williams & Wilkins Company, 1956, p. 37. (10) Goodman, L. S., & Gilman, A.: The Pharmacological Basis of Therapeutics, ed. 2, New York, The Macmillan Company, 1956, p. 187.*

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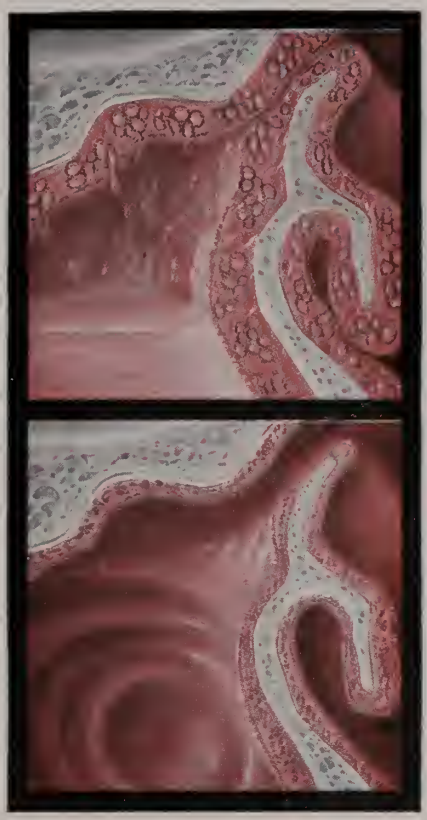
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In colds and sinusitis unsurpassed in providing drainage space without chemical harm



The clogged sinus
In sinusitis, the mucous membrane becomes hyperemic and edematous, lymph glands and goblet cells hyperactive. Ostium is closed by edema and secretions cannot drain freely.

The normal sinus
Magnified anatomy of a portion of maxillary sinus showing mucous membrane with cilia and lymph glands. Ostium is normal and patent.

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Available in plastic nasal sprays for adults (½%) and children (¼%), in dropper bottles of ⅛, ¼ or 1 per cent.

1. Grant, L. E.: Coryza and nasal sinus infections, **Clin. Med. & Surg.** 42:121, March, 1935. 2. Putney, F. J.: Sinus infection, in Conn, H. F. (Ed.): Current Therapy 1952, Philadelphia, W. B. Saunders Company, 1952, p. 110. 3. Simonton, K. M.: Current treatment of sinusitis, **Journal-Lancet** 79:535, Dec., 1959.

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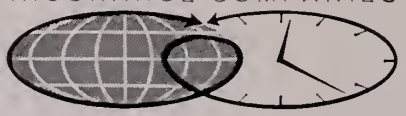
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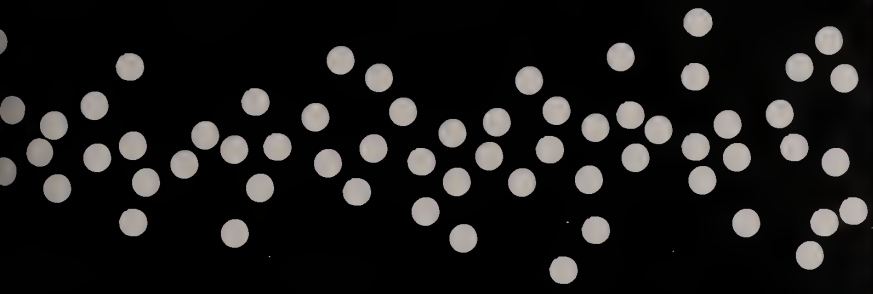
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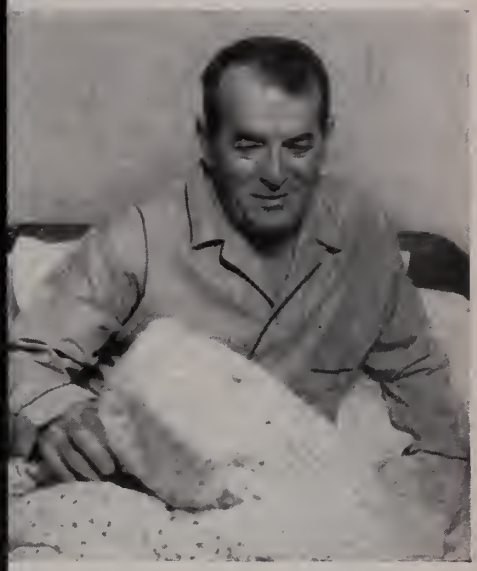


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Medical Arts Building Roanoke, Virginia

Inhibiting effects of smoke constituents on Ciliary Function

●

Phenolic components in the smoke from various types of cigarettes

●

Effects of selective filtration of Phenol by an improved Micronite Filter treated with PFA-17

Introduction of the KENT Micronite filter in 1952 marked a notable achievement of Lorillard research and led to widespread consumer preference for filter cigarettes. Continuing scientific studies conducted at Lorillard Research Laboratories encompass rigorous investigation of cigarette smoke composition, modification of smoke by effective filtration, and effects of smoke per se as well as of its specific constituents. The most recent outcome of such research is an improved KENT Micronite filter with enhanced ability to remove selectively specific undesirable components of smoke. A brief summary of research which led to this development is given below for the information of those who may be interested.

Studies of Effects of Smoke on Ciliary Function

Various materials including cigarette smoke have been reported to inhibit ciliary function. Cilia are microscopic hairs projecting from specialized cells found in a wide variety of organisms. Cilia beat in rhythmic

unison to create wave-like motion. The effect of these sweeping move ments is to propel surrounding fluids steadily in one direction. In man, a in other animals, cilia of the respiratory tract are associated with secretor cells which provide a thin film of mucus that is kept flowing by ciliar action. Inhaled foreign particles become trapped in the mucus or on it surface. The biological function of respiratory cilia is to transport foreig particles away from the lung area on steadily flowing mucus currents.

Ciliated cells of various organisms are physiologically quite similar Ciliated tissues from the mouth and esophagus of the frog have tradition ally been used in studies of ciliary function. Lorillard researchers devel oped a carefully standardized technique for study of ciliated tissues of th frog exposed to various environmental conditions, such as cigarette smoke

In these studies, the tissue preparation is placed in the exposure chambe of a specially designed instrument through which laboratory air or smok is drawn in calibrated volumes. The tissue is first exposed to laborator air and at the end of a 30-minute equilibration period is transferred to humidified observation chamber and placed under a microscope at 30 magnification. Fine carbon particles placed at one end of the tissue flow toward the opposite end and give a visual determination of the rate o mucus flow, an index of ciliary action. The time required for particles t flow 2.5 mm. is recorded as the norm or control rate. The tissue is then ex posed to measured puffs from a test cigarette and again observed unde a microscope to measure the rate of mucus flow after exposure. Compar ison of the control rate with the exposure rate of mucus flow gives measurement of the inhibiting effect of smoke on ciliary function.

Accurate Analysis of Phenol Content of Smoke

Numerous investigators have reported the presence of phenolic com pounds in cigarette smoke. Lorillard researchers have studied phenol an other smoke constituents for a number of years. This research was greatl accelerated in 1960 when Lorillard scientists perfected a rapid, accurat method for quantitative measurement of phenol in smoke, employing ga chromatography and phenol labeled with Carbon 14. A number of phe nolic compounds were identified in cigarette smoke, but phenol itself wa the major chemical component of the group.

Investigation established that about 80% of the phenol in smoke occur in the particulate matter, the rest in the gaseous phase. Tests of popula cigarette brands showed marked variations in phenol content of th smoke. Unfiltered smoke contains 2 to 4 parts of phenol per thousan parts of "tar." Filtered smoke is significantly lower in phenol content, bu substantial differences in screening efficiency of various filters were ap parent. The range is indicated by the following table of quantitative test on three popular brands of cigarettes:

Micrograms of Phenol per cigarette

leading non-filter brand	105 mcg.
leading filter brand	35 mcg.
ENT with Micronite Filter (untreated)	24 mcg.

Mechanisms of Phenol Reduction in Cigarette Smoke

Employing a rapid technique of accurate phenol analysis, and using frog issues as sensitive test-organs, Lorillard researchers initiated comparative tudies under the observation of an independent biologist of cilia-de-ressing effects of the smoke from various types of cigarettes. Repeated ob-ervations of rates of mucus flow in excised esophageal tissue of the frog onsistently gave the same result: *the more phenol in the smoke, the greater he slowdown of mucus transport,* reflecting depression of cilia. This un-xpected finding indicated that cilia depression is not a non-specific effect f smoke per se, but a reaction to a specific type of chemical compound.

Certain filters, such as the KENT Micronite filter, screened out more henol than could be accounted for by the volume of particulate matter nd gases removed. Researchers theorized that some mechanism for selec-ive filtration of phenol probably existed, and that selective removal of henolic irritants might be potentiated by a filter of more efficient design. A physicochemical mechanism which could make phenol accessible for elective filtration was postulated as follows:

Vapor components of smoke condense on a solid nucleus, such as a carbon article or ash fragment in the gas stream of a burning cigarette. In the ame manner, water vapor condenses on a dust particle to form a rain-rop. Heterogeneous vapors condense upon a nucleus in inverse order o their volatility. The resulting spherical particle is composed of con-entric strata, with the least volatile materials at the core and the most olatile substances at the surface. Phenol, a relatively volatile compound, would be expected to be concentrated on the surface of a particle and to e susceptible to easy removal by appropriate materials.

Selective Removal of Phenol by a New Micronite Filter Containing a Phenol-Combining Additive

Phenol enters readily into innumerable chemical unions. Lorillard re-searchers sought a compound which would combine with and capture phenol, and be safe and effective as a filter ingredient. Many compounds were studied and tested. One bearing laboratory designation PFA-17 satisfied the most exacting criteria and was immediately tested with KENT's Micronite filter.

The effectiveness on mucus flow of the new Micronite filter with PFA-1 compared with other brands is shown on the following chart:

MUCUS FLOW RATE

Relationship of phenol to inhibition of ciliary function

	Phenol (micrograms per cigarette)	Relative Rate of Mucus Flow
Tissue exposed to laboratory air	—	100 (basal rating)
Cigarette A (filter)	34	33
Cigarette B (filter)	35	33
Cigarette A (non-filter)	104	17
Cigarette B (non-filter)	108	17
KENT Micronite filter (untreated)	24	50
New KENT Micronite filter with PFA-17	12	96

It will be seen that under the described conditions of the experiment the is a direct relationship between the reduction of cilia depression (reflecte in mucus flow rate) and the reduction in phenol content of smoke. A arbitrary index rating of 100 is given to the flow rate of tissue exposed air; decrements in flow rate following exposure to smoke are measure on this scale. The mucus flow rate of tissue exposed to smoke from the ne Micronite filter is essentially the same as when cilia are exposed to labor tory air. Under identical conditions, exposure to smoke of a leading filt cigarette results in an approximate 67% slowdown of mucus flow, ar exposure to a leading non-filter cigarette results in an 83% slowdown.

Lorillard research has established that phenol is the major constituent the phenolic group of compounds in cigarette smoke which depress cilia propelled mucus flow. A highly effective method of selective filtration phenols by addition of a phenol-combining agent to an acetate filter reported. KENT cigarettes contain the new Micronite filter with PFA-1 pursuant to Lorillard policy of continuous improvement of produc through research.

P. LORILLARD RESEARCH LABORATORIE

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A variety of diet dishes to choose from. Ham 'n egg rolls, eggplant casserole, garden beans, oyster stew, gelatine and—beer!

How to help your patient stick to a low-purine diet

The acceptance of any diet depends on its appetite appeal. And this low-purine diet is unusually appetizing! Ham rolls stuffed with scrambled eggs or chilled egg salad make a delicious entree, as does a casserole of eggplant and tomato layered alternately with cottage cheese. A dash of lemon juice flavors fresh vegetables like string beans and beets. Fresh skim milk mixed with dry skim milk powder add a "creamy" taste to oyster stew. Tuna-burgers go nicely with noodles. Fruits and gelatins make excellent, easy desserts, while corn and rice flakes brighten breakfasts.



And a glass of beer can add zest to your patient's diet

104 calories,
17 mg. Sodium / 8 oz. glass
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United States Brewers Association, Inc.

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Each tablet of TRANCOGESIC contains 100 mg. of chlormezanone and 300 mg. (5 grains) of aspirin. The usual adult dosage is 2 tablets of Trancogesic three or four times daily; the dosage suggested for children from 5 to 12 years is 1 tablet three or four times daily. Before prescribing, consult Winthrop's literature for additional information about dosage, possible side effects, and contraindications. WINTHROP LABORATORIES, NEW YORK 18, N. Y.

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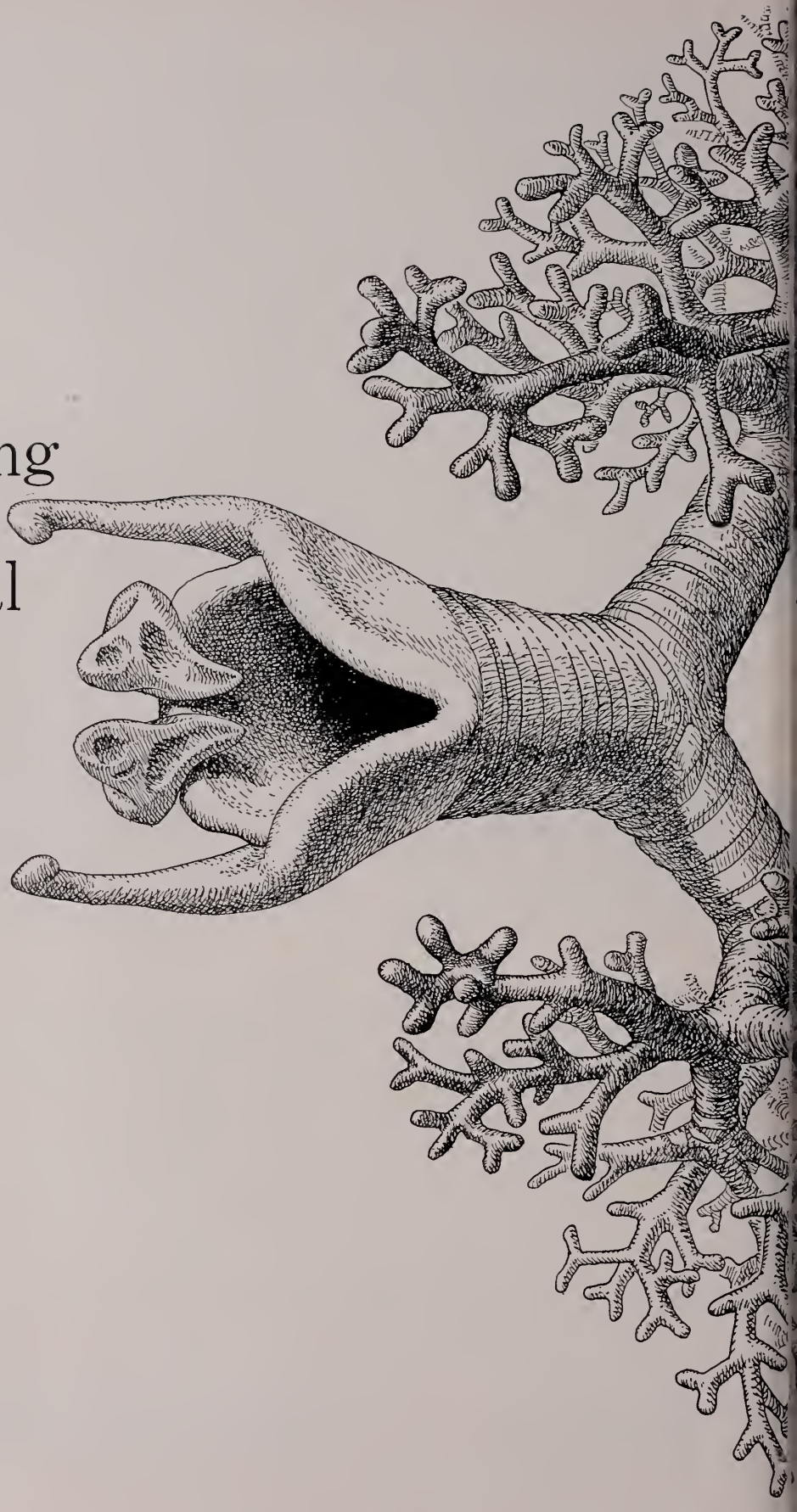
Dosage: One teaspoon (5 cc.) three times daily, before meals. Instruct female patients to discontinue NICOZOL COMPLEX for 7 days after each 21-day course of therapy.

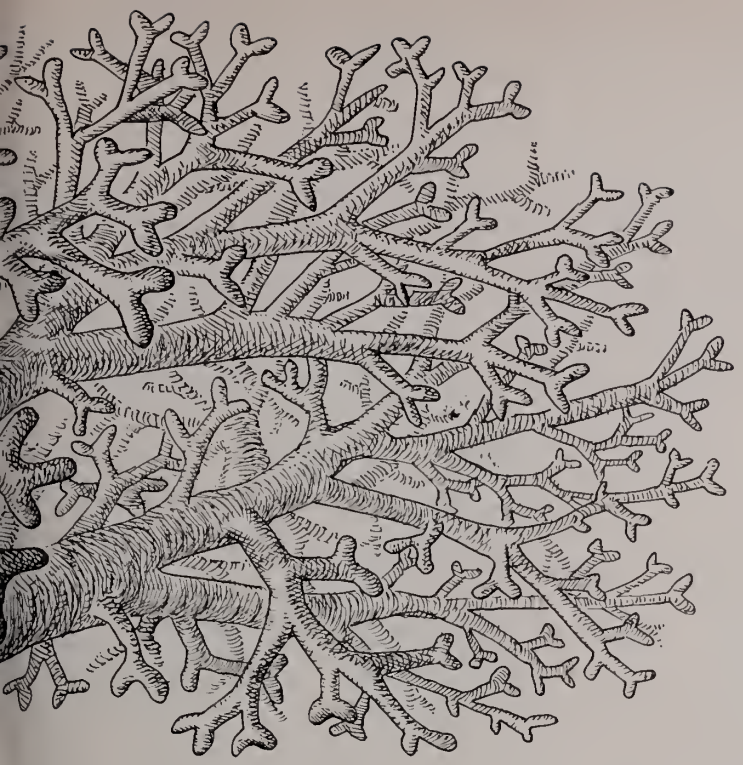
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Nicotinic Acid	75 mg.
Methyl Testosterone	2.5 mg.
Ethinyl Estradiol	0.01 mg.
Thiamine Hydrochloride	6 mg.
Riboflavin	3 mg.
Pyridoxine Hydrochloride	6 mg.
Vitamin B_{12}	2 mcg.
Folic Acid	0.33 mg.
Panthenol	5 mg.
Choline Bitartrate	20 mg.
Inositol	15 mg.
l-Lysine Monohydrochloride	100 mg.
Vitamin E (a-Tocopherol Acetate)	3 mg.
Iron (as Ferric Pyrophosphate)	15 mg.
Trace Minerals as: Magnesium 2 mg.; Manganese 1 mg.; Zinc 1 mg.	
Alcohol	15%

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in bronchial
asthma





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Triamcinolone Lederle



With ARISTOCORT, asthmatic patients obtain sustained relief of wheezing, dyspnea, and spasmodic coughing. It is of particular value in ameliorating severe attacks that may have serious sequelae. With ARISTOCORT, many patients who might otherwise be invalids are able to continue their customary livelihoods or maintain their regular household activities. Yet this symptomatic relief is not often accompanied by the hormonal collateral effects —sodium retention, edema, emotional disturbance, insomnia, voracious appetite— that so often have been a deterrent to steroid therapy.

SUPPLIED: Scored tablets (three strengths), syrup and parenteral. Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

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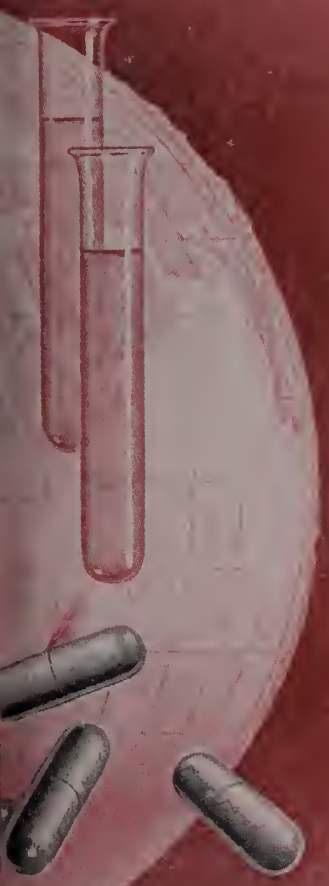
LEDERLE LABORATORIES
A Division of
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Pearl River, New York



from boutonneuse fever in Africa

Whether treating boutonneuse fever, bronchopneumonia, or a host of other infections, physicians throughout the world continue to rely on the effectiveness, relative safety, and exceptional toleration of Terramycin in broad-spectrum antibiotic therapy. This continuing confidence is based upon thousands of published clinical reports and successful experience in millions of patients. *The next infection you see will more than likely be "Terra-responsive."*

Science for the world's well-being® Pfizer PFIZER LABORATORIES Division, Chas. Pfizer & Co., Inc. New York 17, New York



IN BRIEF The dependability of Terramycin in daily practice is based upon its broad range of antimicrobial effectiveness, excellent toleration, and low toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. For complete information on Terramycin dosage, administration, and precautions, consult package insert before using.

More detailed professional information available on request.

Boutonneuse fever is a tick-borne, acute, febrile disease often affecting children. The bite site becomes a small, necrotic ulcer. A striking macular or maculopapular eruption develops on the trunk, palms and soles. Onset is sudden, with chills, high fever, violent headache and lassitude. The high temperature—up to 103° F.—characteristic of both boutonneuse fever and bronchopneumonia, drops rapidly following initiation of Terramycin therapy.

to bronchopneumonia in Virginia

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Terramycin® capsules • syrup • pediatric drops
intramuscular solution • intravenous

also available with nystatin as TERRASTATIN® (capsules and oral suspension)

Logical support for the atherosclerosis diet

A recent report* in the *JAMA* on atherosclerosis states, "...it appears logical to attempt to reduce high concentrations of cholesterol and other serum lipids as an experimental therapeutic procedure."

Since this report recognizes table spreads as an important source of dietary fat, it is in your professional interest to know about the fatty-acid composition of the margarines from Mrs. Filbert's.

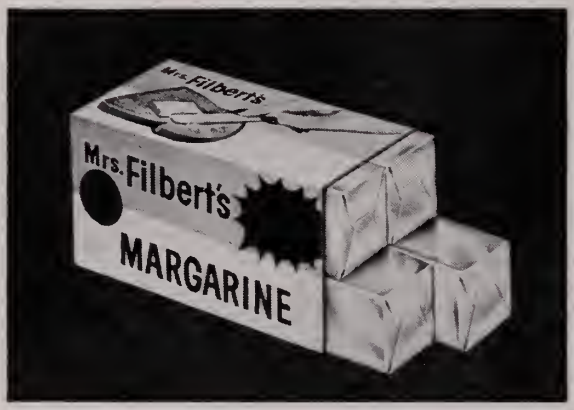
Each of Mrs. Filbert's Margarines is over 80% unsaturated and offers unique properties useful in the control of serum lipids by dietary means.

Moreover, when you recommend any one of Mrs. Filbert's Margarines, your patient is assured of unmatched taste and flavor satisfaction—an important consideration in promoting adherence to any therapeutic regimen.

*AMA Council on Foods and Nutrition: The Regulation of Dietary Fat, *JAMA* 181: 411-423 (August 4, 1962).



Mrs. Filbert's Corn Oil Margarine is made from 100% corn oil, over 50% of which retains its *liquid* characteristics. Because of its high linoleic content, its ratio of polyunsaturates to saturates exceeds 1.5 to 1 . . . and equals the highest level available today in *any* corn oil margarine. Of the total fatty-acid content, 28% is cis-cis linoleic acid. Thus, it can be most useful in a program for reducing serum cholesterol levels.



Mrs. Filbert's Margarine is a popular, conventional-type margarine with no premium price. It is made from the finest domestic vegetable oils, which are partially hydrogenated for texture, but remain over 80% unsaturated. It has a ratio of polyunsaturates to saturates in excess of 1 to 1. Of the total fatty-acid content, 7% is cis-cis linoleic acid.



Mrs. Filbert's Whipped Margarine contains the same number of calories per pound as ordinary margarine, but contains 30% *fewer calories per pat* because it is whipped. When spread normally, it provides satisfaction with a reduction in fat calories. And its ratio of polyunsaturates to saturates exceeds 1 to 1. Of the total fatty-acid content, 7% is cis-cis linoleic acid.

If you would like information about Mrs. Filbert's family of margarines—including detailed listings of their component characteristics—please write us.

J. H. FILBERT, Inc.

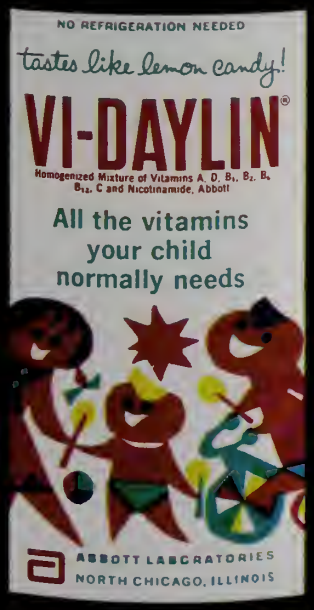
Baltimore 29, Maryland



How do the lemons get in the Vi-Daylin?

Perhaps this should be cleared up once and for all. There are *no* lemons in Vi-Daylin. If you've ever tasted Vi-Daylin, this might surprise you. Certainly, it would surprise the youngsters. To most of them, Vi-Daylin is liquid lemon candy, and that's *that*. But if it's deception, it's sensible deception. You never have to badger the kids into taking their vitamins. Nice to know, too, that this matchless matching of candy essence and color elegance can be found in all the forms and formulas of Vi-Daylin.

VI-DAYLIN—Vitamins A, D, B_1, B_2, B_6, B_{12}, C, and Nicotinamide, Abbott; VIDAYLIN-M—Homogenized Mixture of Vitamins with Minerals, Abbott; VI-DAYLIN-T—High Potency Multivitamins, Abbott.



Remember, there are *three* liquid formulas: Vi-Daylin, ViDaylin-M® (with minerals), and ViDaylin-T® (therapeutic). And if patients get a little owlly and won't touch *anything* in a spoon, you can give them the new Chewable (please see back of this page).

Each delicious, 5-cc. teaspoonful of Vi-Daylin supplies the following proportions of the Minimum Daily Requirements of:

		MDR (Children)	MDR (Infants)
Vitamin A	0.9 mg. (3000 units)	1	2
Vitamin D	10 mcg. (400 units)	1	1
Thiamine HCl (B_1)	1.5 mg.	2	6
Riboflavin (B_2)	1.2 mg.	1⅓	2
Ascorbic Acid (C)	50 mg.	2½	5
Nicotinamide	10 mg.	1⅓	2

Also supplies cyanocobalamin (B_{12}) 3 mcg. and pyridoxine Hydrochloride 1 mg.

20903-A

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Gentlemen,

My family enjoys your chewable vitimans. It seems like we can not get enough of your vitimans. My sister enjoys your vitimans so much that she ask for more but cannot have no more. I like them because my mother does not have to worry about scolding us when taking it. Its good because you don't have no worries about something falling on the floor. If you kept on making these vitimans all the worlds children would be happy again. Now I would like to know whether I may have any information on the Middle West. You see my class and I are studying it. So if the information can be given I thank you very much.

"...all the worlds children would be happy again."

(an unsolicited testimonial from an actual letter)



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For every kind of pruritus—for adults or children—safe, fast-acting CALMITOL Ointment soothes itching on contact, helps prevent secondary trauma caused by scratching. And low-cost, conservative CALMITOL is non-sensitizing. CALMITOL Ointment is available at all pharmacies in 1½ oz. tubes and 1 lb. jars. For more stubborn pruritus, CALMITOL Liquid in bottles of two fluidounces.
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Stelazine® will stop anxiety—but not your patient!
brand of trifluoperazine

To be truly useful in your office patients, an ataractic agent must not only relieve anxiety; it must also leave these patients sufficiently alert to engage in their normal activities.

'Stelazine' is such an agent. Its ability to relieve anxiety without producing appreciable sedation has been established in thousands of patients and documented by many published reports. Typical is the finding of Kolodny,[1] who concluded that the primary advantage of 'Stelazine' over many other tranquilizers seems to be "its ability to relieve symptoms of anxiety without undue interference with alertness."

When you wish to relieve anxiety, yet encourage the patient to engage in his normal activities, consider 'Stelazine'.

1. Kolodny, A.L.: Dis. Nerv. System *22*:151 (Mar.) 1961.

For prescribing information, please see *PDR* or available literature.

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for more satisfactory relief of [illegible] aggravated [illegible]

PHENAPHEN®

- More satisfactory than "the usual analgesic compounds" for relieving pain and anxiety.[1]
- More effective than a standard A.P.C. preparation for relief of moderate to severe pain.[2]

Each PHENAPHEN *capsule contains:*

Acetylsalicylic acid (2½ gr.)	162 mg.
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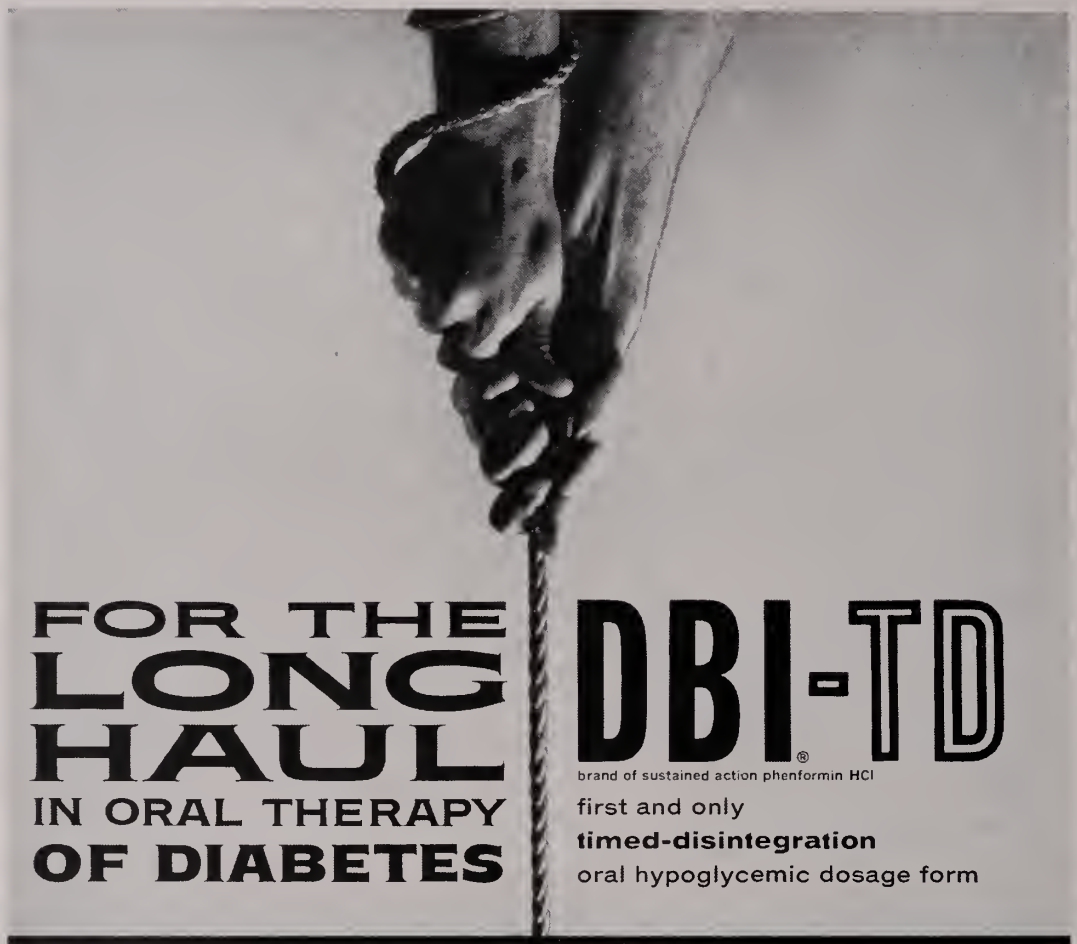
Bottles of 100 and 500 capsules.

1. Meyers, G. B.: Ind. Med. & Surg. 26:3, 1957. 2. Murray, R. J.: N. Y. St. J. Med. 53:1867, 1953.

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long term response ..."Secondary failure is unlikely to occur" with phenformin[4] (DBI-TD capsules, DBI tablets). Phenformin has been successfully administered daily in diabetics in one study for over 3 years[2] and in another for up to 4½ years[1] with "a virtual absence of acquired resistance or true secondary failure."[1] Indeed, DBI has produced a satisfactory response in 55 to 60% of tolbutamide secondary failures.[3,7]

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DBI-TD (brand of Phenformin HCl — N^1-β-phenethylbiguanide HCl) available as 50 mg. timed-disintegration capsules; bottles of 100 and 1000 capsules. Also available as DBI tablets, 25 mg., bottles of 100 and 1000.

Important: Before prescribing DBI-TD, the physician should be thoroughly familiar with directions for use, including indications, dosage, possible side effects, precautions and contraindications. Write for complete literature.

1. Pomeranze, J.: Clinical Med. 8:1155, June 1961. 2. Krall, L. P. and Bradley, R. F.: Geriatrics 17:337, May 1962. 3. DeLawter, D. E. et al.: J.A.M.A. 171:1786, Nov. 28, 1959. 4. Perkin, F. S.: J.A.M.A. 173:36, May 7, 1960. 5. Pearlman, W.: Phenformin Symposium, Houston, Feb. 1959. 6. Radding, R. S. et al.: Metabolism 11:404, April 1962. 7. Gold, A. et al.: Applied Therapeutics 2:137, 1960. 8. Brown, G. O. and Gabert, H.: Applied Therapeutics 4:451, May 1962. 9. Gold, A.: Applied Therapeutics 4:466, May 1962.

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Each teaspoon (5 ml.) contains:

Codeine phosphate	5.0 mg.
Neo-Synephrine® hydrochloride (brand of phenylephrine hydrochloride)	2.5 mg.
Chlorpheniramine maleate	0.75 mg.
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Bright red, pleasant tasting, raspberry flavored syrup

Dosage:

Children from 6 months to 1 year, 1/4 teaspoon; 1 to 3 years, 1/2 to 1 teaspoon; 3 to 6 years, 1 to 2 teaspoons; 6 to 12 years, 2 teaspoons. Every four to six hours as needed.

How Supplied:
Bottles of 16 fl. oz.

Available on prescription only.

Exempt Narcotic

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The outstanding effectiveness and record of safety with which Miltown relieves anxiety and anxious depression—the type of depression in which either tension or nervousness or insomnia is a prominent symptom — has been clinically authenticated time and again during the past seven years. This, undoubtedly, is one reason why physicians still prescribe meprobamate more often than any other tranquilizer in the world.

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Usual dosage: One or two 400 mg. tablets t.i.d.
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Why does SARDO so effectively relieve[1-5] dryness and itching in so many patients with eczematoid dermatitis, atopic dermatitis, senile pruritus, contact dermatitis, soap dermatitis, diabetic dry skin, neurodermatitis?

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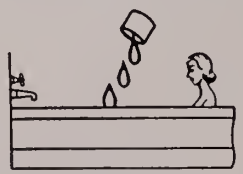
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SARDO promptly disperses millions of microfine globules uniformly throughout the bath water; no unsightly oil slicks as with certain other bath additives.

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Also available: SARDOETTES, disposable compresses impregnated with SARDO, for topical application in relieving skin dryness, itching, scaliness in the same conditions as listed for SARDO.

1. Borota, A., and Grinell, R. N.: J. Amer. Geriatrics Soc., 10:413, 1962. 2. Spoor, H. J.: N. Y. State J. M., 58:3292, 1958. 3. Lubowe, I. I.: Western Med., 1:45, 1960. 4. Weissberg, G.: Clin. Med., 7:1161, 1960. 5. Lieberman, W.: Amer. J. Proctology, 12:374, 1961.

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DEXEDRINE®

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she's losing weight

'Dexedrine' *Spansule* capsules not only control appetite all day long, but at the same time encourage normal activity. This is particularly important because overweight patients are often inactive. In such patients 'Dexedrine' overcomes lethargy, helps renew their interest in doing things—not just eating.

PRESCRIBING INFORMATION

INDICATIONS AND DOSAGE: For the following indications, the recommended daily dosage is one or two 'Dexedrine' *Spansule* capsules, usually taken in the morning: control of appetite in weight reduction; depressive states; alcoholism. In narcolepsy, the recommended daily dosage is up to 50 mg. of 'Dexedrine' by 'Spansule' capsule on arising.

SIDE EFFECTS: Insomnia, excitability and increased motor activity are infrequent and ordinarily mild.

CAUTIONS: Should be used with caution in patients hypersensitive to sympathomimetic compounds; in cases of coronary or cardiovascular disease; and in the presence of severe hypertension.

CONTRAINDICATIONS: Hyperexcitability; agitated pre-psychotic states.

SUPPLIED: 5 mg., 10 mg. and 15 mg., in bottles of 30. (Each capsule contains dextro amphetamine sulfate, 5 mg., 10 mg., or 15 mg.)

Prescribing information adopted January 1961.

Smith Kline & French SK&F *Laboratories*


Since the influenza epidemic of 1918
Burroughs Wellcome & Co.
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'TABLOID' BRAND
'Empirin' Compound
COMPRESSED

....the first choice of many physicians to relieve aches, pains, fever, and general malaise of colds and flu.

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'EMPIRIN' COMPOUND with CODEINE PHOSPHATE *

gr. ⅛ gr. ¼ gr. ½ gr. 1



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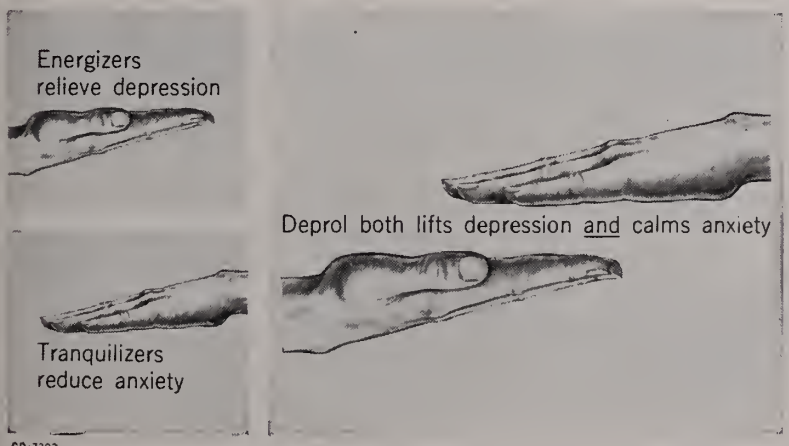
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"I feel like my old self again!" Balanced Deprol therapy has helped relieve her insomnia and fatigue – her normal energy, drive and interest have returned.

Brightens mood...relaxes tension



CD-7393

Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this may be increased gradually up to 3 tablets q.i.d. With establishment of relief, the dose may be reduced gradually to maintenance levels.

Composition: 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate.

Supplied: Bottles of 50 light-pink, scored tablets.

Write for literature and samples.

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*T*rocinate is a musculotropic antispasmodic with no appreciable anticholinergic action. It relieves spasms of the lower bowel and genito-urinary tract by direct action on the contractile mechanism of smooth muscles. The absence of any appreciable action on the autonomic nervous system eliminates the usual side-effects. It may be safely used in glaucoma. Each tablet contains 100 mgs. Trocinate HCl.

USUAL DOSAGE: 2 tablets, 4 times a day. Maintenance dosage is frequently lower.

Dispensed in bottles of 40 and 250 tablets.

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ascorbic acid	50 mg.

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the case of the missing ampoule

People aren't perfect—neither are machines. Both can slip up occasionally. Take an ampoule in a paper carton for example. How can we be absolutely sure that the ampoule is really inside? ■ Here's how: A machine folds the carton, inserts the ampoule, seals the carton, and then places it on the finishing line. Further down the line, the detective waits—a jet of air sweeping across the finishing line just strong enough to blow an empty carton off the belt. Properly filled cartons proceed for further inspection and packaging. ■ Perhaps a small point, but it is another in a long series of control measures designed to deliver quality pharmaceuticals every time.

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The Virginia
MEDICAL MONTHLY

November, 1962
Vol. 89, No. 11
Whole No. 1326

Guest Editorial . . . .

Educational Hocus - Pocus

NO ONE CAN DENY that a sound education is the basis of progress of any people. Until comparatively recently we had it in this country in our secondary schools and in our colleges. One is constantly amazed, in reading the lives of our Founding Fathers, at the depth of their erudition. One might say that they had more leisure for reading. Possibly so, but they certainly did not spend their leisure hours watching the almost completely uneducational, and sometimes degrading, television.

Early in the century, John Dewey, of Columbia University, made the statement that people do best what they like best to do. That was so obvious that even those in Carlyle's quota ("There are a billion people in the world, mostly fools") recognized the truth of it. However, certain educators perverted Dewey's truism by saying that school pupils should not be made to do anything they did not want to do. This resulted in so-called Progressive Education. It also resulted in a multiplication of teachers' courses ad infinitum. It has come to the point where it makes little difference whether a teacher knows much about the subject he is teaching, just as long as he has taken a number of courses on *how* to teach it.

Also, this new "progressive education" has resulted in a number of silly elective courses being put in high school curricula to the detriment of the sound "meaty" courses on which all the people in our older generation grew up, such as history, English, mathematics, languages, and sciences. Now the emphasis is on "life adjustment", and we find courses on "How to Pick Up a Handkerchief Gracefully" and on "How To Be Happy On A Date". Many of these courses are given by people who have never been happy on a date in their lives. And all of this, of course, is utter tripe! A high school in Michigan gives an 8-day course in deer hunting. Those who "pass" get two days off for hunting. In a local high school many of the school hours are spent in teaching the pupils how to play cards, how to play tennis, and how to drive a car. This school's graduates are not soundly enough educated to be able to gain admission to our nurses training schools. In one school those students who successfully complete the auto mechanics course are awarded a Doctor of Motors certificate. Another school gives a course on how to use the telephone, and still another gives a course in Organized Snowballing. How silly can they get, anyway?

Also we find that what has been considered for many years as our leading Teachers College is (or was recently) offering a course on "Social, Psychological and Economic Foundations for the Enriched Teaching of

Textiles and Clothing". The same institution has accepted dissertations for the Doctor of Education degree such as "A Study of Little League Baseball and its Educational Implications" and "The Organization and Administration of College Bands". What further evidence do we need for the abolition of teachers colleges?

Our colleges also have had their educational diet so diluted that the average student gets no nourishment out of it at all. It is possible for a student to go through college picking snap elective courses and come out a complete ignoramus. Not only this, but some of the courses are positively bad in that they have perverted American history and American traditions by saying such things as that our Constitution was drafted by a "minority group" which sought "to defend private property" and "to check popular rule". A thorough study by several *real* educators has shown that most of the economics textbooks in our colleges are decidedly leftwing.

The summer session catalog of one of our large universities lists seven courses in chemistry under two professors; five courses in physics, two professors; 11 courses in mathematics, 12 professors—and 142 courses in education with 97 professors!

What has been the result of all this silly nonsense? It probably accounts for the decrease in the number and quality of applicants for medical schools. Sound education no longer counts. It means that absolute truths are no longer taught, and that the youths of our country have been brought up without the absolute standards of conduct which were formerly a by-product of our educational system. Everything is relative. The end justifies the means. One must "adjust".

This has resulted in one young American intellectual deliberately taking part in a television swindle which fooled and cheated many of his fellow citizens. It resulted in our young soldiers, taken prisoners by the Communists in Korea, being so easily brainwashed by them. Maybe they were simply "adjusting" because they had not been taught the fundamental principles upon which American action has always been determined. No wonder that some of them were not loyal to each other as prisoners, and that some went over to the other side. Certainly at least one labor leader in this country is completely un-American in his thinking and actions and we know that he got most of his education and training in a country entirely alien to us, both in geography, politics, and standards of conduct.

We now find many supposedly decent people who blatantly state that there are no eternal truths, that "times have changed". Certainly times have changed, but everyone who has been brought up in a real educational system, and not the "progressive" kind, and who has studied history at all, knows that there are certain fundamental truths, and the sooner we get back to them, the better for our country. The eternal verities are timeless and unchangeable. These are *truths* which men do not create, but which are self-evident and in the very nature of things.

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Congenital Hypertrophic Pyloric Stenosis

A Critical Review of Some of its Patho-Physiologic, Clinical and Roentgenologic Aspects

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The problem of hypertrophic pyloric stenosis is reviewed, especially diagnostic considerations.

IN THE KNOWLEDGE of its treatment and in the ignorance of its cause, congenital hypertrophic stenosis stands almost without peer in medicine. My purpose in this paper is not to produce anything startlingly new (for such a privilege has been given to few) but rather to integrate fact and theory from domestic and foreign sources into a workable scheme for all who deal with this problem—family physician, pediatrician, surgeon and radiologist.

Treatment is relatively well defined and will not be discussed except incidentally. Major emphasis will be put upon patho-physiology, the more unusual or less well known clinical manifestations, and the method and merit of the radiologic exploration. The experience of the radiologist in the smaller hospital, almost all of whose potential congenital hypertrophic stenosis material is subjected to radiologic examination, is at no great disadvantage to that of the radiologist in the big center, where only 5 to 10 percent of the material is so explored.

Patho-Physiology

Nomenclature. I have discussed elsewhere[12] the functional anatomy of the distal end of the stomach and the urgent need for reform in nomenclature to conform with the anatomic and functional facts as given by the methods of dissection and radiology.[27,28,49] The distal few centimeters of the stomach are made up of two dominant loops of circular smooth muscle, meeting at the lesser curvature side of the pyloric ring (pyloric muscle knot), the two loops connected by an inner sheet of circular muscle and an outer sheet of longitudinal muscle. The distal encircling loop is the *pyloric ring*, or more simply, the *pylorus*. The functional state of the two loops and of the two sheets of connecting muscles determines the anatomic state of this segment, where the progressing annular peristaltic waves from the proximal stomach change their character to a concentric, systolic action. Rather than *pyloric canal, prepyloric region,* or *canalis egestorius,* it is suggested that this segment be referred to as the *antrum,* and be identified by its characteristic roentgenologic behavior.

The hypertrophic muscle mass in congenital hypertrophic pyloric stenosis does *not* involve the pylorus,[20,25,33,43] but rather the connecting circular muscle sheet of the antrum, beginning just orad to the pylorus and extending proximally to involve more or less of the whole antrum.[43] Elimination of *pyloric* in the name would therefore abolish such double-talk in the responsible literature as: "The changes are not located in the pylorus but in the pyloric portion of the stomach".[43]

Although congenital hypertrophic pyloric stenosis has been reported in the stillborn,[35]

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there is considerable doubt that most of the cases are congenital. Wallgren[51] radiographed the stomachs of 1000 new-born males and found no abnormalities. At about three weeks of age, five began to vomit and shortly thereafter presented the typical roentgenologic signs of congenital hypertrophic pyloric stenosis. It is of interest that the expected incidence in such a sample would be six. Typical changes, however, have been observed in infants only a few days old; 10% of Malmberg's[33] patients were already symptomatic in the first week of life. This question whether the disease is congenital may best be resolved by recognition of a congenital, inherited anlage for the disease, the actuating factor (*v. infra*) starting to operate a variable time after birth, and in a few cases, possibly before birth. Certain "adult" diseases such as cancer and tuberculosis too may depend on a congenital predisposition, but it would be stretching logic to call them congenital. Thus, at least for the present, it were better to delete *congenital* from the name of the disease.

Almost without exception the underlying abnormality of the antral muscle mass is acknowledged to be *hypertrophy*. Guichard and Delorme,[23] however, admit the possibility of a *hyperplasia*.

Just as The Holy Roman Empire was neither holy, nor Roman, nor an empire, so congenital hypertrophic pyloric stenosis is thus shown to be neither congenital, nor pyloric, nor possibly exclusively hypertrophic. Since the name is so well entrenched in medical thinking and parley, it would be folly to try to change it. Almost as good as a change in the name itself, however, is the dissemination of the knowledge of its inappropriateness. In the following, the disease will be referred to as HPS.



Fig. 1. A.: Cross section through antrum of normal infant.
B.: Cross section through antrum of infant with hypertrophic pyloric stenosis, showing massive enlargement of circular muscle. Note the folds projecting into the lumen, which account for the multiple "strings" seen on the roentgenograms of some patients.

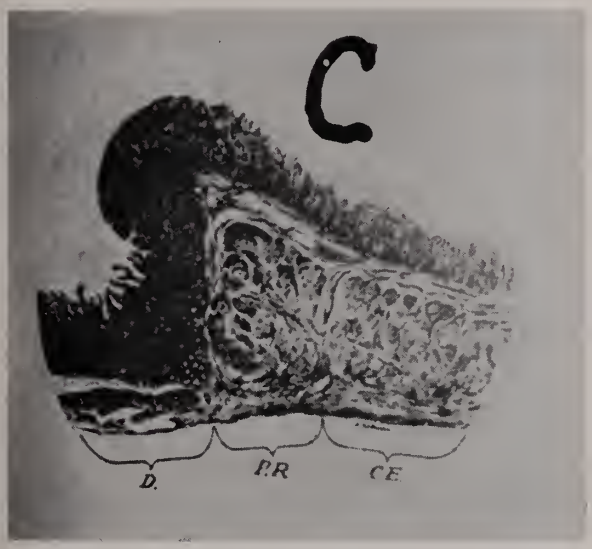
Pathogenesis. It is here that fact meets fancy, the latter often over-riding the former. Fact: the ganglion cells in Auerbach's plexus within the muscularis propria are abnormal. According to most, the cells are degenerated (chromatolytic or atrophic) with varying degrees of glial proliferation,[3,31,37] are less in number[3,4,31] and show more or less reversibility. In contrast, Friesen et al.[19] ascribe the changes in the ganglion cells to immaturity: "The plexus of the hypertrophic pylorus has a cellular distribution similar to that seen in the normal

pylorus several weeks earlier in age." These cells cannot be degenerated, they say, because their full maturity does not occur until several weeks after birth. Lane-Roberts[31] points out, however, that the cell changes cannot be due to delayed maturation, since a higher incidence of HPS should occur in premature infants, and this is not so.[44,54]

That the ganglion cells are abnormal in morphology and number remains a *fact*. How to work these abnormal cells into the pathogenesis of HPS invokes *fancy*. Disordered motor activity of the antrum is a *fact*. Does the abnormal Auerbach's plexus *cause* the disordered motor activity, as claimed by some,[3,31,39] or does it *result* from the disordered motor activity, as claimed by others?[37] It is better for the matter to remain *sub judice* for the present. It has been said that operation merely permits the patient to maintain metabolic balance while the natural reversion of the changes of degeneration in the ganglion cells takes place.[39]

A similar dilemma consists in whether the disordered motor activity of the antrum causes the muscular thickening by some vague process of work hypertrophy, or whether the muscular thickening arose first, independent of the primary disordered motor activity, and necessarily causing it.[3,4,6,31,34] Again, no positive conclusion is possible.

What role does spasm play in HPS? It will be noted that the term "spasm" is incorporated in the name of the disease in some of the German literature,[3,16,29] reflecting the belief in its importance in the pathogenesis. Variations in the clinical "feel" of the tumor and in the clinical course, and the unquestioned effectiveness of spasmolytic agents in many patients support its role.[9,23,34] Others[42] deny that spasm is of any importance. The author finds it difficult to accept that any non-neoplastic hypertrophic muscle mass does not perform its primal activity, contraction, at least at times.



C.: Longitudinal section through pyloro-antral segment of normal infant. (D, duodenum; PR, pyloric ring; CE, antrum)



D.: Longitudinal section through pyloro-antral segment of infant with hypertrophic pyloric stenosis. The pyloric ring does not share in the hypertrophy. (Same legend as in 1 C) Figures 1 A through 1 D taken from Hayes, M., and Goldenberg, I.: The Problems of Infantile Pyloric Stenosis. (By permission of Surgery, Gynecology & Obstetrics). Intern. Abst. Surg. 104:105-138, 1957.

Two other kinds of evidence suggest a basic autonomic imbalance in the innervation to the stomach in these infants. Bendix and Necheles[5] point out the high incidence of ulcer in the adults who have had pylorotomy in infancy, and the high incidence of ulcer, migraine, allergy, and spastic colon in their families. These authors feel that a "local irritation during embryonic life" is superimposed on the autonomic imbalance.

Fundal pressure curves[14] obtained from nine infants with HPS showed a constant abnormal pattern of increased activity as compared with those obtained in six other infants, some of whom had vomiting, but none with evidence for HPS. The abnormal curve was modified by operation but did not completely return to normal within the first few days. Occasionally, the curve was not changed at all by operation even though symptoms were much improved, suggesting a motor deficiency of the whole stomach, rather than its distal end. The comparison with the disordered motor activity in the *whole* esophagus with achalasia is at once suggested. This method of fundal pressure curves has been used diagnostically in the vomiting neonate with some success.[14]

Just how is the principal clinical evidence of HPS, vomiting, produced? It is the vomiting of decompensation against a mechanical obstruction in most of the patients.[29] The deformity may be radiologically detectable in an *asymptomatic* infant who may never develop symptoms, as the illuminating case study of twins, the other of whom had clinically manifest HPS, demonstrated.[42] However, the case of little or no muscle hypertrophy revealed at the first operation, but a considerable mass at the second one done shortly afterwards[34] indicates the possibility of the disordered motor activity of the stomach as a cause of vomiting. In most cases, however, vomiting must be regarded as a sign of decompensation with obstruction from a well-developed muscle tumor.

Just how does the muscle tumor produce obstruction? Immediate post-operative roentgenologic studies have shown that there is litte difference from the pre-operative picture; it takes months, or years, for reversion to the normal, indicating another factor in addition to the occluding muscle mass itself. Spasm is one possible factor: the value of the spasmolytics attest to this; pylorotomy acts not only mechanically but possibly also as a "sympathectomy".[23] Certain changes in the mucosa are probably even more important in effecting the final degree of obstruction.[42] Serial post-operative roentgen studies show a progressive change in the mucosal pattern from no or few longitudinal folds to gradually increasing prominence and variability of the pattern, and this with no striking change in the caliber of the stenosis.[42,43] Mucosal edema has been attributed to stasis from the big muscle mass (another possible explanation of the success of pylorotomy),[33,46] or to irritation from intraluminal contents attempting to get through the stenotic area.[21]

Clinical

I propose to discuss only certain of the less well known clinical features.

Race. Although in the past it has been widely accepted that HPS is less common in the Latin and the Negro,[6,25] there is now some doubt of this.[33] Crude statistics of the incidence in the Negro are meaningless unless the racial composition of the hospital population has been determined.[38] The disease in the Negro in our community hospital is unusual, especially since he constitutes some twenty percent of the local population. The preponderance of communications from the Teutonic and Scandinavian countries is impressive.

Genetics. Presence of HPS in siblings and in each twin is well documented,[33] the more so when the twins are monozygotic.

Onset. There may be striking departures in the age of onset from the usual third to eighth week. Four percent of a series of 707 cases began vomiting immediately after birth;[6] ten percent of Malmberg's patients[33] had symptoms from the first week.

Evidence that the onsets of HPS may cluster about spring and fall is suggestive.[33]

Many careful mothers were able to assign the exact day, even the hour, when symptoms began, according to Malmberg.[33] A sudden onset occurred in about 38% of his patients.

Incidence. It is quite likely that HPS is decreasing in incidence, at least in certain

localities.[44,52] It has dropped in Gothenburg, Sweden, from 4 per 1000 live births during 1934-40, to 1.99 in 1950-59.

Prematures. The clinical picture of HPS in premature infants differs in some respects from that in full-term. The incidence of HPS and the post-natal age of appearance are about the same in the premature as in the full-term infant.[44,54] Of the five patients in Wilson's series[54] all were females, in striking contrast to the usual predominance in the male. Only one of the five was the first-born, again in contrast to a usual (but by no means uniformly accepted) statement of the predominance of HPS in the first-born.[6,25] Vomiting is usually not projectile and the disease is "deceptively milder". In contrast with the full-term infant, the radiologic examination was of little help, possibly because varying degrees of gastric retention and hypoactive peristalsis are normally found in the premature.

Physical Examination. The dehydrated, emaciated, moribund child should no longer be seen in today's practice. The physical examination then resolves itself about feeling the "olive", the hypertrophic muscle mass. Few aspects of HPS have caused more dissention than the palpability of this mass and its place in the diagnosis. As a tribute to the assiduity of certain examiners, subcapsular hepatic hematoma have been found at surgery in two of 41 patients.[17] One may only speculate on the number present among those not subjected to surgery. According to the examiner, tumors should be found in well over 95% of the patients[21] down to "only a few exceptional cases".[33] "It is obvious that the great variation in reports regarding palpation of this objective sign cannot be wholly or entirely due to varying degrees of skill in palpation".[33] Roviralta[41] was "convinced that this sign would be much more rarely 'observed' if it were sought in infants whose clinical history was not known" (*translation mine*).

To compound the clinical difficulty of feeling the tumor, a palpable tumor does not mean organic change when felt in the first two weeks of life.[13] Twenty-five tumors were felt in 115 new-born healthy infants. Hence, "detectable tumor without associated symptoms is not uncommon". However, greater significance must be placed in feeling a tumor in the infant with vomiting during this period. Seventeen of the 21 vomiting infants had tumors. A few of these eventually required surgery for HPS. The tumors in the first two weeks of life must mean *spasm* and not *hypertrophy* in most patients, since autopsies in this age show no such incidence of thick muscles as the number of these tumors felt would indicate.

Jaundice is a rare finding in HPS.[1,7,49] The high ratio of unconjugated to conjugated bilirubin would indicate that jaundice is not a simple obstructive phenomenon, either from the pressure of the muscle mass[44] or of inflammatory changes in the lesser omentum[7] upon the common duct. For speculation on the cause of jaundice, which clears post-operatively, the interested reader is referred to the paper of Arias, et al.[1]

Bloody vomitus has received some attention[6,7,11,24] as a sign in HPS. Its incidence in HPS is said to vary between two and 12 percent. It has been attributed merely to vigorous vomiting,[6] to a severe grade of stasis gastritis from severe obstruction,[7] and to a variety of other causes, some verified and some speculative, such as hypovitaminosis K secondary to malnutrition, peptic ulcer, hiatal hernia, and bleeding diathesis.[11,24] Six of the 10 infants from a group of 218 with bloody vomitus pre-operatively had an unfavorable course:[24] One of the six died from a hemorrhagic diathesis, and roentgenologic examination never disclosed the cause for the bleeding in the remaining five. Chaptal et al.[11] offer a useful classification, distinguishing three types of bleeding: (1) episodic, minimal bleeding, often late, disappearing after surgery, and carrying no unfavorable prognostic implication; (2) abundant bleeding, usually late, sometimes early, sometimes needing transfusion, also disappearing after surgery; (3) abundant

bleeding that continues after intervention, carrying a bad prognosis. In neither of Chaptal's fatal cases was the source of the bleeding disclosed at autopsy.

Roentgenologic Examination

Opinions of the value of the roentgenologic examination run the wide gamut from harmful, useless, helpful in certain patients, to indispensable in all patients.[32,33,54,55] That it is harmful can be refuted quickly: The fear of regurgitation of barium into the lungs, so common among pediatricans, is without basis.[53] Indeed, barium is a useful contrast agent for bronchography.[15] Radiation exposure should be well within tolerated limits with modern equipment. The total elapsed time of fluoroscopy need not exceed 1½ to 2 minutes.

The policy of limiting the roentgenologic examination only to those in whom the "olive" is not palpable is unacceptable not only because of the uncertainties of palpating same (or the interpretation of same when it is palpated)[13,56] but also because of the chance of missing significant co-existent abnormality. The phreno-pyloric syndrome of Roviralta[40] is the association of HPS and sliding hiatal hernia. This must be sought for especially in the atypical cases of HPS: absence of a symptom-free interval after birth, bloody vomitus, presence of HPS in the female, and poor results from pylorotomy. He assumed a neural reflex relationship between the two conditions. Others believe the association is chance,[23] or due to mechanical factors incident to the obstruction in the presence of congenital abnormalities at the hiatal region.[30] Other conditions to be looked for are atonic cardia, mobile cardia (both of which, with sliding hernia, comprise the *syndromes cardio-tubérositaires* of the French writers), hernia through the foramen of Bochdalek, and reflex esophagitis.[30] All the cardial findings disappeared following pylorotomy in those cases subjected to roentgenologic control; disappearance in those without the control is assumed in the absence of any further symptoms.[30]

If only for the reason of associated abnormalities, the validity of the following statements must be accepted: "X-ray examination is absolutely necessary, contrary to the practice of certain Anglo-Saxon countries",[23] and "Examination for palpable or non-palpable tumor is completely unnecessary, unreliable, time-consuming for the physician and unpleasant for the patient, whereas the x-ray examination gives the desired information rapidly, indisputedly and conveniently".[33]

Nothing by mouth from the night before the roentgenologic examination as preparation is unnecessarily harsh, especially in those infants whose water and metabolite balance may be precarious. I have found four hours of starvation adequate. Initial scout films of the abdomen are usually not helpful. The abdomen singularly free of gas is not common.[2] The gasless belly may be found in diarrhea and adrenal insufficiency as well as HPS,[18] and is probably due to dehydration, the common factor to all three states. (It is of interest to find that adrenal cortical abnormality has been suggested as a cause of HPS; the concurrence of a true HPS and adrenal cortical disturbance has been observed.)[33]

Some use fluoroscopy not at all,[26] depending entirely on chance filming. This is unacceptable to the author because certain fluoroscopic features pointing to spasm rather than to HPS (*v. infra*), to the most judicious time for spot-filming, and to associated cardial abnormalities may be missed.

The author prefers to introduce the barium suspension (Veriopaque, Sp. Gr. 1.450) *via* a catheter passed into the stomach (verify position by fluoroscopy!) to remove any gastric secretion or retention (the better to infiltrate the narrowed antral channel with the barium), and to introduce a measured amount of suspension accurately and expeditiously. Ten to 15 ml. suffice.[2] The two and three ounces[20,26,45] repeatedly recommended in the literature are not only un-

necessary but impair visualization of the antral channel because this is usually superimposed on the contrast-filled more proximal portions of the stomach, and possibly inhibit peristalsis.[2] Oblique incidences of the central ray (tube tilted toward head 20-25 degrees) have been recommended in the continental literature[22,32] to project the channel free, but these are unnecessary when the smaller amounts of suspension are used. Further, aspiration of remaining barium from the stomach at the end of the examination is superfluous with the smaller amounts.

The paper of Meuwissen and Slooff[34] heralded the change from the roentgenologic old[9,45] to the new: the emphasis changed from the secondary signs of gastric outlet obstruction (dilatation and retention) to the primary (demonstration of narrowed antral channel itself). Dependence on the secondary signs results in an unnecessarily prolonged examination measured in hours, prolonged radiation exposure, and error; emptying time is variable, especially with gaseous distention.[36] A normal emptying time may be found with HPS.[47]

After the barium has been introduced, the catheter is withdrawn and the infant is put in a sharp right anterior oblique position (reference to table top) and maintained thus by the technician at the child's head, and the right hand of the radiologist. Palpation has not been found necessary, as suggested by Frimann-Dahl.[20]

(Although the shrieking child is well suited to good spot radiography because of periods of sustained apnea,[42] modern equipment capable of exposures of 1/120 second at 200 MA make such consideration unnecessary; further, the quiet child is more conducive to the equanimity of the examiner, and to good peristalsis in both. Toward this end the technician might hold the infant a minutes or so after the catheter has been removed.)

The general pattern of behavior of the stomach is observed fluoroscopically. At the end of a peristaltic wave if possible, four spot-films are made. Then, several swallows of barium suspension are given through a nursing bottle with a large hole in the nipple to examine the esophagus and cardial end. Finally, antero-posterior, postero-anterior, and right lateral roentgenograms are made with over-head tube. The roentgenograms are then viewed (about 20 minutes have elapsed) and if the diagnosis of HPS cannot readily be made, four additional spot-films are made as described above. (In the very unusual patient where the problem is still not solved, a repeated examination may be done at a later date.) Note that no serial roentgenograms are made to estimate retention or emptying time.

Evaluation of Roentgenologic Findings. The center of interest, of course, is the distal end of the stomach. The pyloric ring, usually only a few millimeters at most, is prolonged to a narrowed channel up to 2 or 3 centimeters. This antral narrowing has been repeatedly likened to a string, thread, hair or needle, with justification in some patients, but without in others. These symbols with a common denominator of linearity may reach 4 mm. in surgically verified cases and may present with *several* linear shadows. When multiple, they are just the longitudinal folds projecting into the narrowed elongated lumen. Although their multiplicity has been commented upon,[2,23] observers of some skill and experience have hesitated to make the diagnosis of HPS when this multiplicity is present, so firmly has *the* string been impressed upon their medical consciousness.

A confident diagnosis of HPS may be offered when there is the "sign of the hiatus and smudge" (Fig. 2). The hiatus[2] is the absence of barium in the 2 to 3 cm. interval between the stomach and the duodenal bulb, the latter being recognized as a smudge of barium in the incompletely filled structure. Obviously this configuration results when none, or too little of the barium for visualization, is in the elongated narrowed antrum.

The other signs of indentation of the muscle mass proximally into the stomach, or

distally into the base of the bulb, of the proximal barium spur or beak leading into the non-visualized narrowed channel, and of the aperistalsis of the latter are all well recognized. Determination of the opening time of the stomach is fraught with difficulty,[2] and is really unnecessary because demonstration of the antral narrowing alone is adequate for, and necessary to, the diagnosis.



Fig. 2. Spot-film showing "Sign of the Hiatus and Smudge". Arrow indicates the smudge of barium in the incompletely filled duodenal bulb. The "void" between this and the visualized stomach is the hiatus. Note the two concavities with the beak in between projecting into the stomach at the proximal end of the hiatus, caused by the enlarged muscle mass. This complex adequate for the diagnosis of HPS, without direct visualization of narrowed channel.

The only important differential consideration is antral spasm, and at times may be very difficult to make.[2,34,56] Spasm also may present with a string sign. Whereas the deformity of HPS is that of an organic rigidity, the caliber of the antrum in spasm may show slight variation during the course of the examination; peristalsis is not likely to be vigorous proximal to the spasm; a small wave may eventually be seen passing through the antral spasm like a large bolus passing down a snake; the stomach is likely to start emptying suddenly and in large amounts, the upper small intestine thus obscuring effective study of antrum and bulb; the stomach should have already started its emptying or some variation in the antral segment should have occurred in the first 20 to 30 minutes. The possibility of confusing these spastic cases with Astley's "atypical" HPS in which the typical tumor cannot be felt is significant, and a repeated examination may be required.[2,55,56]

My personal roentgenologic experience with HPS in the premature is limited. Wilson[54] claims that not only is the clinical picture "deceptively milder", but roentgenologic study is not very helpful, the diagnosis resting on the clinical picture. This opinion should be confirmed or rejected by additional studies.

The roentgenologic diagnosis should ap-

proach 95 to 100% accuracy.[2,26] Besides antral spasm, peritoneal bands, malrotation,[17] and peri-antral extrinsic tumors[23] account for the occasional error.

Post-Treatment Findings

The post-treatment (both surgical and medical) roentgenologic appearance has interested many observers over the years. Meuwissen and Slooff from Holland in 1932 clearly reported in their classic paper[34] that the elongation of the canal persists for a variable time after "clinical and functional healing", the diameter becoming larger, the longer after operation it is observed.

These observations have been confirmed and amplified by others, largely in the Scandinavian countries,[42,43,47,48] from Germany,[16,29] and from this country.[8,38] The roentgenologic picture immediately post-operatively presents the same elongated narrowed canal as the pre-operative, but without significant obstruction, and the canal may now be a bit wider with an increased number of longitudinal, somewhat varying rugae. This segment is still aperistaltic. This phase persists in most children up to the age of one year, and in many up to four years and longer.

The next change towards normalization is the appearance of small peristaltic-like variations in the canal. This is seen the earliest at two years of age and may persist up to 13 years. Runström[42] believes that the appearance of additional longitudinal folds indicates further return towards normalcy of the mucosa: "One of the most important factors in the occurrence of symptoms and the emptying rate of the stomach is no doubt the condition of the mucosa".

For the medically treated, the return to roentgenologic normal seems to stop at about puberty, and 13% will have persistent changes.[48] In the surgically treated, the return to normal starts earlier, but this group has not been followed sufficiently long to ascertain what percent will have persistent roentgenologic changes.

One third of the children in the 10-12 year group who had been treated *conservatively* in infancy for HPS continued to have roentgenologically detectable abnormalities.[16]

One of the latest and most complete follow-up studies on 70 patients from eight months to 32 years of age[29] confirms that peristalsis, stomach opening and emptying times, and lengths of canal all have a tendency to return to normal by the fourth year. In the first group of patients (52 children from eight months to 11 years), antral changes were much more common, but digestive complaints in only one-fourth. In the second group of patients (18 adults from 21 to 32 years), a pathologic canal was noted in only four, but two of these had symptoms. Twenty-four of the entire group of 70 had a normal canal, but six, mostly children, had digestive complaints. Aside from vomiting in the younger age groups, it is doubtful whether most of the clinical symptoms reported can be related to the persistent pathologic changes in the canal.

Kittrich and Friolet,[29] just as Runström,[42] relate the presence or absence of symptoms in large measure to the caliber of the canal: the acute, symptomatic phase presents a narrowing of 4 mm. as a maximum. Their post-treatment material (70 patients) disclosed a canal smaller than 4 mm. only twice. Others, in the minority, believe that the caliber of the canal does not determine the degree of stenosis.[32]

It will be thus noted that the roentgenologic antral deformity persists for greater or less time after surgical *and* medical treatment, but less with the former. The inference of Trump & Swan[50] that the penny was retained in the stomach of their child because the treatment had been medical rather than surgical is thus not entirely acceptable.

It is a real possibility that some cases of HPS of infancy persists into adult life and comprise at least some of the HPS of this age group.[16] The condition in both infants and adults has a similar anatomy and sex preference.[46,57] At least two fathers suffering from adult HPS are on record with one

and two sons, respectively, who have had the infantile form.[57]

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Unknown Prescriptions

The thrust of invention and development has placed us all in an informational pressure cooker, and nowhere is this fact more clinically apparent than in the field of medicine. I am told by a doctor friend that seven out of ten prescriptions written today are for items unknown to medicine before World War II. The communications problems that result are more serious here than in any other area, since human health and life itself are involved.—David Sarnoff, RCA Board Chairman, to National Health Council.

Long Term Clinical and Cholesterol Studies on Triparanol (MER/29)

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Although triparanol does reduce serum cholesterol levels, this study does not show any clinical benefit. There are also significant side effects.

PREVENTING or even reversing atheromata in the coronary arteries would significantly reduce the morbidity and mortality rates in our population.[1]

An approach to this problem by the reduction of serum lipids, especially serum cholesterol levels, has been made through dietary restriction of fats, especially the saturated fats, by the use of polyunsaturated fats, large doses of nicotinic acid, female hormones, thyroid analogues, and with triparanol. The effects of triparanol have been ascribed to the reduction of serum cholesterol levels by blocking the formation of cholesterol from desmosterol.[2]

Short term studies have indicated both lowering of cholesterol levels and clinical improvement, including reversal of abnormal exercise tests and reduction of anginal episodes.

Observations spanning longer intervals of therapy were considered essential to obtain information as to the prolonged hypocholesterolemic effects of the drug, and more importantly, to ascertain clinical results in a disease prone to follow unpredictable paths.

MER/29 (Triparanol) was withdrawn from the market on April 17, 1962 because of side effects, which included hair loss, skin changes, including ichthyosis and severe exfoliation, and cataracts.

From the Departments of Medicine and Bio-Chemistry, Medical College of Virginia, Richmond.

Methods

Sixteen patients, ten males and six females, were placed on triparanol (MER/29) and followed at monthly intervals from four to nine months with determinations of the serum cholesterol, neutral fats and clinical observations. Nine of the subjects had experienced myocardial infarctions and all of the group had arteriosclerotic heart disease. Twelve subjects were experiencing angina pectoris. Electrocardiograms were made at the termination of the study and compared to pre-treatment tracings. All patients were begun on 250 milligrams of MER/29 daily. They were increased to 500 milligrams daily in February 1961, in all instances at least four months after initiation of therapy. Determinations were carried out in Dr. John Forbes' laboratories, Department of Biochemistry at the Medical College of Virginia, all determinations being made by the same individual, (O.P.).[3]

The determinations were made using a Klett-Summerson photoelectric colorimeter with 42 and 62 filters, corresponding to wave lengths of 420 and 620 millimicrons respectively. The color developed was obtained with Liebermann-Burchard reagents. The color developed with this reagent has two good absorption bands, one at 420 millimicrons and another at 620 millimicrons. Either wave length is satisfactory for cho-

lesterol. However, when desmosterol* was run against a cholesterol standard the values were 10 per cent too high when the 42 filter was used and 30 per cent too low with the 62 filter. This means that when desmosterol was present in serum the results with the 62 filter would be slightly lower than the true sterol value.

Results

Eleven patients were essentially unchanged as regards electrocardiograms and symptoms of coronary artery disease, primarily angina; none were actually determined to be improved. Five patients sustained unequivocal coronary artery syndromes, four of these with myocardial infarction with one death, and one with severe coronary insufficiency. One patient was hospitalized in pulmonary edema from a hypertensive crisis.

J. D., 55 year old white male with previous anterior myocardial infarction and coronary insufficiency was begun on 250 milligrams of MER/29 on September 28, 1960. On January 31, 1961, he sustained an acute posterior infarction and expired within twenty-four hours in irreversible shock and pulmonary edema. Autopsy revealed extensive coronary atherosclerosis, and acute posterior infarction and thrombus in a markedly atherosclerotic right coronary artery. The distal aorta contained a large amount of atheromatous deposits almost occluding the terminal aorta. Adrenal lipids were depleted. The heart and proximal aorta were examined by column chromatography in the biochemical department of the Merrill Company in Cincinnati, and these results were kindly supplied by their Director of Research, Dr. Robert McMaster. Analysis of the myocardium revealed desmosterol 12 per cent; of the coronary artery desmosterol 4 per cent, and of the aorta desmosterol 3.8 per cent. (Table 1.)

W. B., 38 year old white male fireman with hypercholesterolemia and xanthomatosis, developed classical angina of exertion after seven months on MER/29 treatment

Table I

Cholesterol-Desmosterol

Myocardium, Coronary Artery, Aorta

J.D. 55 w.m. 250 Mgm. Mer/29

	Mgm. Per Gm. of Tissue
Myocardium	
Cholesterol	1.01
Desmosterol	.14
% Desmosterol	12.2
Coronary Artery	
Cholesterol	24.0
Desmosterol	1.0
% Desmosterol	4.0
Aorta	
Cholesterol	5.3
Desmosterol	0.21
% Desmosterol	3.8

Courtesy Robert H. McMaster, M.D.

and on August 2, 1961, developed severe substernal pain radiating down the left arm with subsequent changes of a posterior infarction on electrocardiogram. He had taken 500 milligrams of MER/29 daily for five months prior to his infarction. Photographs of the xanthoma on the knees revealed a slight reduction in size of the nodules, but none of the lesions actually disappeared. (Fig. 1)



Fig. 1. Before Treatment. After Treatment.

J. K., 62 year old white female was hospitalized twice, for ten days and for sixteen days with coronary insufficiency. Episodes were three and five months after beginning treatment with 250 milligrams of MER/29.

Z. G., 56 year old white female was hospitalized with myocardial infarction from May 16th to June 30th. Hospitalization was complicated by shock and congestive

* A weighted amount of desmosterol was kindly supplied by Dr. Thomas R. Blohm, William S. Merrell Company, to enable us to make this comparison study.

failure. She had been on MER/29 for seven months, three months on 500 milligrams daily. (Fig. 2)

T. G., 54 year old white male was hospitalized with anterior myocardial infarction two months after onset of MER/29 treatment. He was re-hospitalized seven

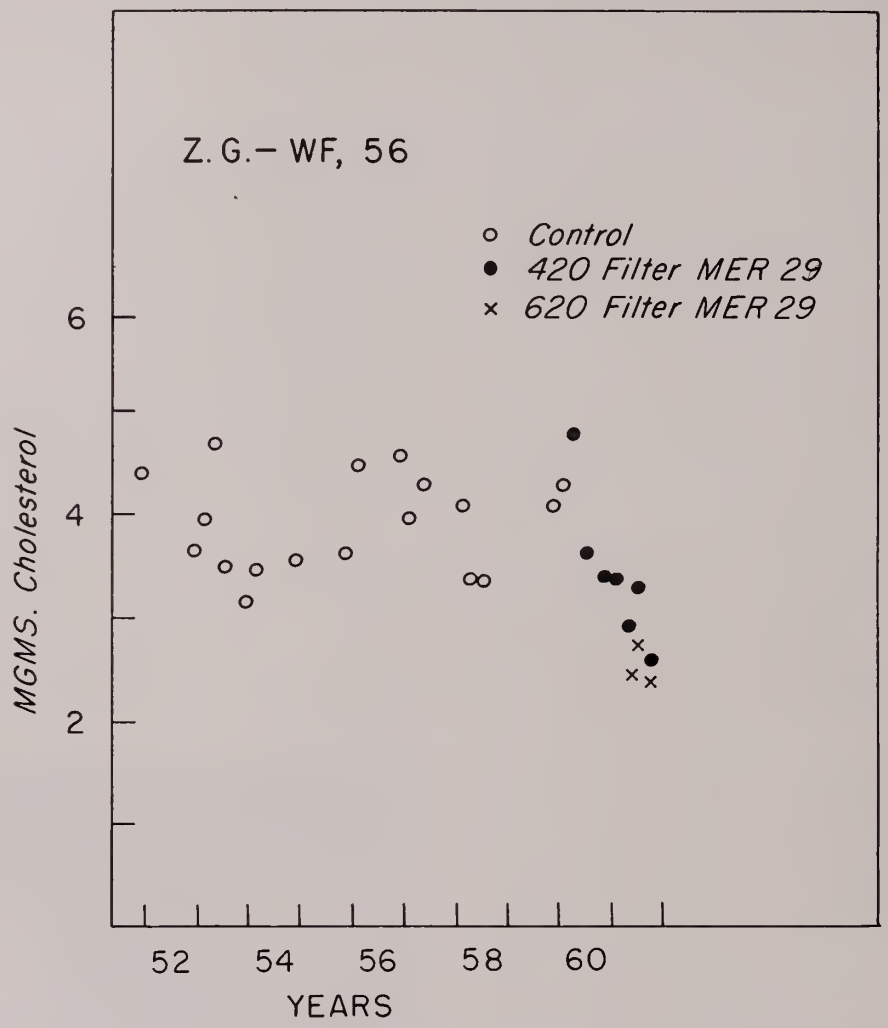


Fig. 2. Patient had been followed since 1952 on low fat diet. Solid dots and crosses indicate response to triparanol.

months after beginning MER/29 therapy with coronary insufficiency.

The cholesterol determinations were completed on fourteen of the sixteen patients. One patient expired and one discontinued the study after five months. Pre-treatment levels were compared to results obtained in July 1961; the fourteen subjects had been on MER/29 at least nine months, and 500 milligrams of MER/29 for five months. One patient, R. V., received 250 milligrams for four months and 500 milligrams only one month before discontinuing the study. (Figs. 3 and 4)

Using the 42 filter the reductions ranged from 0 to 231 milligrams with a median of 63 milligrams of cholesterol and a mean reduction of 76.6 milligrams per cent. Using the 62 filter the reductions ranged from 47 milligrams to 267 milligrams with a median of 96.5 milligrams of cholesterol and a mean reduction of 118.1 milligrams per cent.

Utilizing the 42 filter and averaging three months, December, January and February values, on 250 milligrams of MER/29 only five of the sixteen patients had a greater

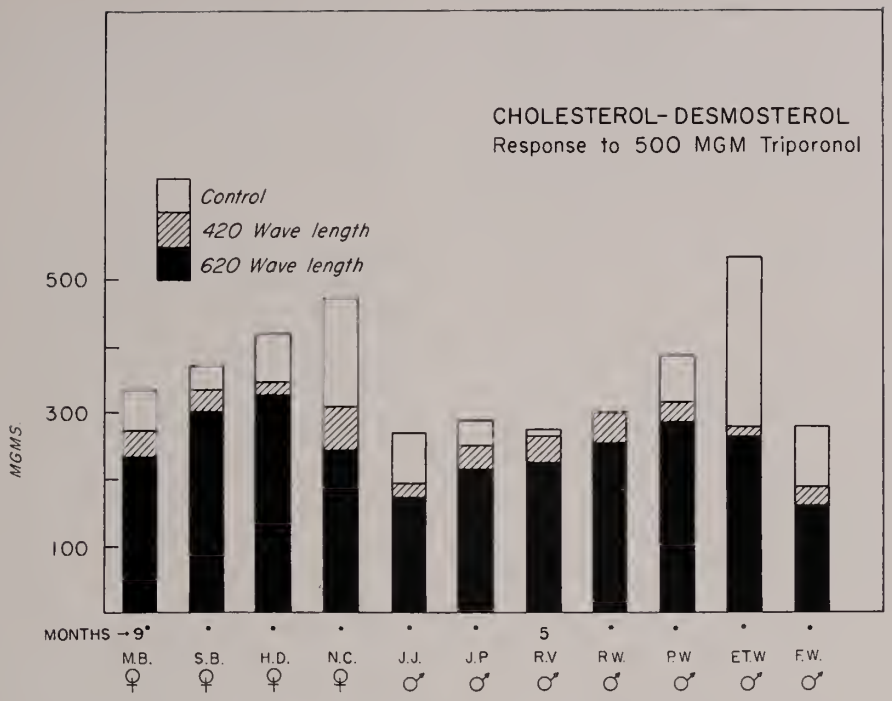


Fig. 3. Shaded areas represent approximate desmosterol content of serum.

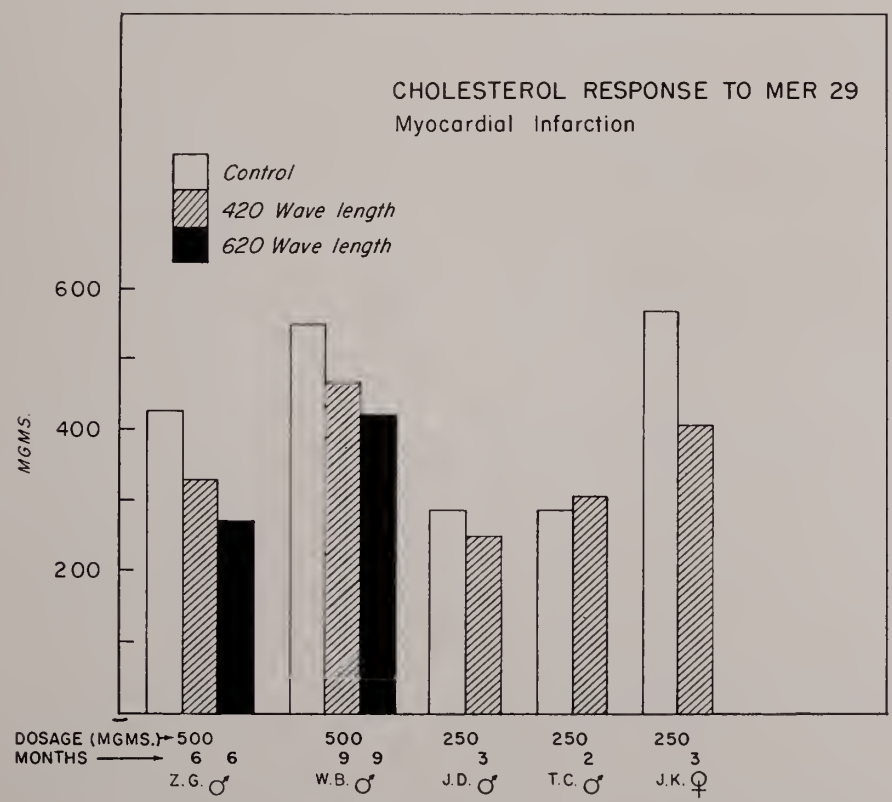


Fig. 4. Note that the last three subjects were receiving 250 mgm. of triparanol at the time of infarction, the first two 500 mgm.

than 10 per cent reduction in serum cholesterol levels. It was then decided to increase the dosage to 500 milligrams daily. April, May and June average values on 500 milligrams revealed that ten of the remaining fourteen subjects (71 per cent) had serum cholesterol values reduced by more than 10 per cent. (Table 2)

426	342	286	233
336	308	283	237
370	343	306	303
546	439	416	418
285	268		
419	411	340	324
470	368	322	243
282	308	263	210
269	282	222	173
569	495	543	483
288	275	248	217
274	265		
300	302	277	253
387	370	313	286
531	931	424	264
281	250	197	164
Filter	420	420	620
PRE Rx	250 mgm. av. 3 mos.	500 mgm. av. 3 mos.	500 mgm. single determination
	Dec.-Feb.	Apr.-June	July
	25% greater than 10% reduction	71% greater than 10% reduction	100% greater than 10% reduction

Utilizing the 62 filter all fourteen subjects in July exhibited a greater than 10 per cent reduction.

Therefore, between 71 per cent, or 100 per cent of subjects, depending on filter technique used, developed a significant lowering of cholesterol values.

As mentioned earlier, desmosterol gives the 42 filter readings a slightly (10 per cent) higher cholesterol reading, and the 62 filter a lower (70 per cent) reading.

Toxicity

M. B., 70 year old white female developed a dry scaly skin and marked loss of hair within two weeks after increasing dosage to 500 milligrams. The hair loss stopped within two weeks of discontinuing the drug; a dry scaly skin persists over the legs but is improving.

Two other patients, N. C., 63 year old white female, and Z. G., 56 year old white female described excessive loss of hair and dryness and roughness of the skin of the thighs. (Fig. 5).

Discussion

Five of the sixteen patients experienced clinical coronary syndromes, four of whom had myocardial infarctions and one coronary insufficiency. These results were disappointing and did not indicate any evidence for prevention of coronary occlusion or reversal of coronary atherosclerosis.

No patient with angina became free of angina and there was no apparent diminution in the attacks or reduction of angina of exertion.

Dryness of the skin and hair loss were distressing side effects in one patient, and were present to a lesser degree in two others. This dryness may well represent reduction of fat in the epidermal structures. The skin changes appeared to be reversible when the triparanol was discontinued.

Studies of the autopsied patient indicates that desmosterol may be interchangeable with normal sterols in the myocardium. However, desmosterol was found only in small concentrations in the atheromatous lesions of the coronary artery and aorta. The possibility that desmosterol will not deposit in any quantity in diseased vessels leads to the hope that the remaining sterol, cholesterol, in the atheromata might be reduced as total body cholesterol is reduced, but this has not been proven.

Another factor to consider is whether it is desirable from long term considerations to replace normal cholesterol concentrations in tissues, such as the adrenal, heart, liver, with desmosterol in significant concentrations. The effects on hormone production are being carefully considered.

Studies by Melby et al have reported impaired adrenal response to ACTH and diminished cortical and aldosterone production on large doses of MER/29 in healthy subjects.[4]

Depletion of adrenal cholesterol, which is the precursor of the adrenal steroids, has been produced in animals and adrenal lipid depletion was noted in our autopsied patient, although the stress of his terminal infarction may have contributed to the depletion.

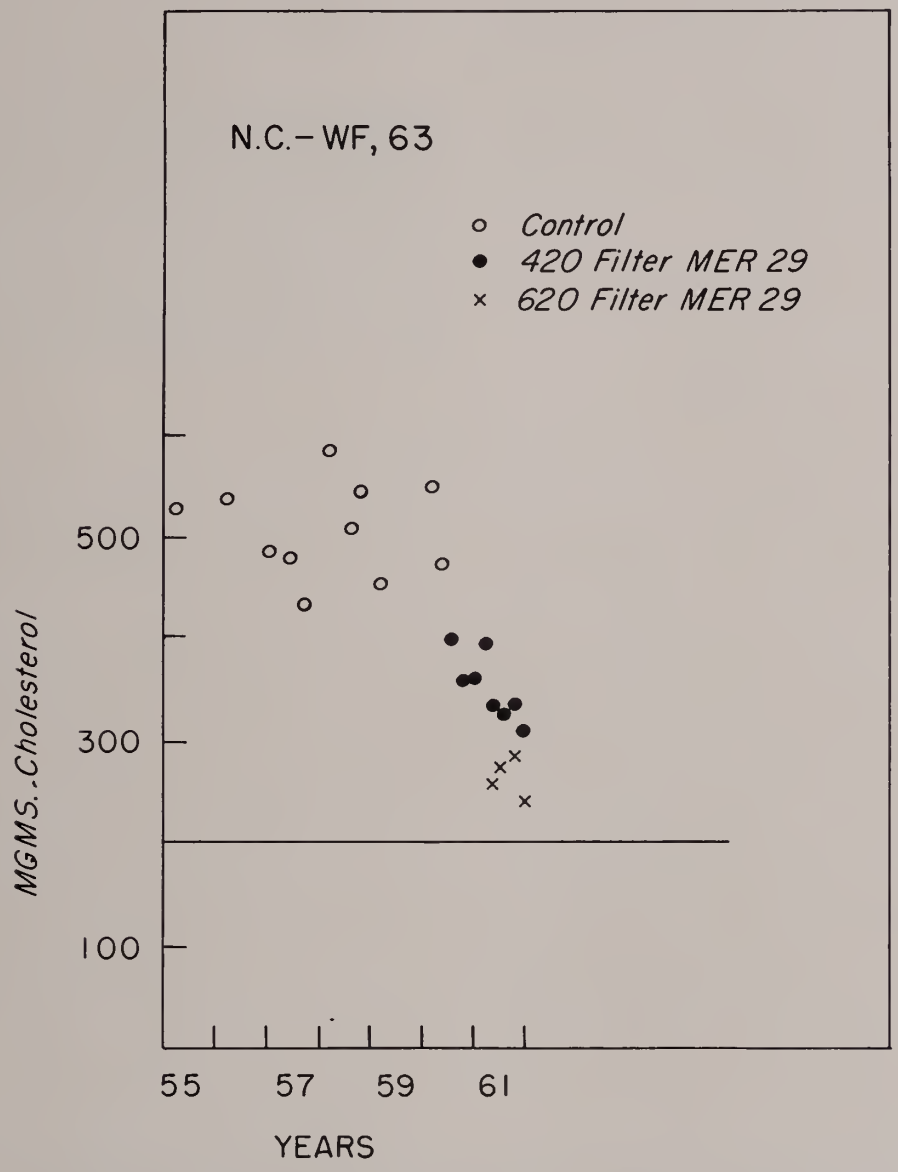


Fig. 5. This female with previous myocardial infarction was followed since 1955. Note marked drop in cholesterol on triparanol. She developed dry scaly skin and hair loss.

Summary

Sixteen patients were given triparanol from four to nine months. Fourteen completed the study. One voluntarily discontinued the study after five months of triparanol therapy.

Four patients sustained myocardial infarction, one of whom died.

An additional patient was hospitalized on two occasions with coronary insufficiency.

Serum cholesterol levels were reduced in the fourteen patients who completed the study.

It was not felt that clinical benefit from triparanol (MER/29) had been established.

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Mild High Blood Pressure

A new drug, mebutamate, has proved useful in the treatment of patients with mild forms of high blood pressure and "may have broad potential application," according to an article in the September 22nd Journal of the American Medical Association.

Drs. A. C. Corcoran and Hubert F. Loyke, Cleveland, reported results obtained with the drug in treating 40 women between 35 and 60 years of age suffering early, mild high blood pressure or high blood pressure caused by hardening of the arteries.

These two types of high blood pressure are believed to be the most common among patients treated by physicians in office practice, and a growing body of evidence and opinion favors treatment of such cases.

Mebutamate is a derivative of meprobamate, a widely used tranquilizer, but mebutamate is "several times more effective" in lowering arterial pressure.

Mebutamate lowers blood pressure through a calming action on control centers in the brain and spinal cord. Over-activity of these centers characterizes the so-called "neurogenic" phase of the early stage of the disease as well as most cases of established hypertension.

Mebutamate should be considered a mild blood pressure depressant and is not indicated for patients with severe, progressive or complicated disease who require a more powerful drug.

The drug has a short term of action and must be taken three or four times a day. It also causes sedation in some patients.

However, no serious side effects characteristic of other anti-hypertensive drugs resulted from mebutamate during a period of nearly one year.

Mebutamate "would seem a safer, if somewhat less predictably effective agent" than other currently used drugs for initial treatment of hypertensives who do not have unusually severe, unduly complicated, or rapidly progressive disease.

The researchers are affiliated with the hypertensive clinic, division of medicine, St. Vincent Charity Hospital.

Office Gynecology in Private Practice

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The scope of gynecology, both diagnostic and therapeutic, that should be done in the office is discussed.

BECAUSE of the time element involved, this discussion will be limited to the more common conditions, diagnoses, treatments, and studies in so far as they pertain to our private office practice.

Fully 80% of the gynecological disturbances seen are amenable to office diagnosis and treatment.

Before any diagnosis can be made or treatment undertaken, it is important that a complete history be taken and recorded, which history involves that first taught us in medical school (inventory of systems).

In the gynecologic patient particular reference must be paid to age of menarche, regularity of menses, amount of flow (clots, size of clots, number of pads per day, variation in number of pads), metrorrhagia, dysmenorrhea, leucorrhea and its type, presence of vulval irritation and/or itching, nipple discharge and masses in the breasts.

It is not in the scope of this paper to tell you how to do a pelvic and breast examination, but it must be remembered that it consists of the four cardinal approaches: inspection, palpation, auscultation, and percussion.

The equipment needed is that that any doctor doing physical examinations on female patients should have readily accessible in his office: clean rubber gloves, catheters, bivalve specula of varying sizes and shapes, tenacula—preferably double toothed, cotton applicators, clean glass slides, slide containers for transportation, wooden spatulae, Lugol's Solution or other suitable iodine preparations, biopsy instruments for cervix, uterine sound, uterine suction curette, the doctor's own two, sensitive, kind, and gentle hands, and, rarely, lubricating jelly.

In the light of present day gynecology, lubricating jelly should not be used before making the speculum examination because it immobilizes trichomonads and dehydrates the cells depended upon for oncology. The patient should be instructed not to take any type of douche or insert any medicament in the vagina or have intercourse for forty-eight hours prior to the examination. This last sometimes poses a sensitive problem.

The bladder should be emptied by catheter immediately before examination so it will not be mistaken for a pregnancy and because I believe the voided specimen to be of no value in the female.

The patient should be well relaxed and not embarrassed. This is not a pleasure trip for her.

Problems Frequently Seen

Retrodisplacements of the uterus: There are three types; retroversion, retroflexion, and retrocession, the last is rarely seen as a cause of complaints; the first two may be grouped together.

Retrodisplacement occurs in approximately 16% of women either as a primary condition or as acquired. 70% of them will present one or more of the following symptoms: cramps with menses, backache between and exaggerated by menses, intermenstrual abdominal pain, menorrhagia, metrorrhagia, and most rarely infertility.

Presented at the annual meeting of The Medical Society of Virginia, Richmond, October 8-11, 1961.

After careful bimanual examination, it can be ascertained whether or not the displacement is complicated by other disease of the pelvis. If it is not and if, this is important, the patient has any of the above symptoms, a collapsible Smith or Smith-Hodge type of pessary of the proper size should be inserted in the vagina to reduce the uterus to its normal position. Twenty years ago I gave up manual reduction of the uterus because of the attendant extreme discomfort to the patient and because I found that in 98% of uncomplicated retrodisplacements, the pessary does the reduction much less painfully.

In uncomplicated retrodisplacement a good anatomical result is obtained in 96% of the patients and relief of symptoms is obtained in 79%. In the other 21% it must be assumed that the cause of the symptoms is other than the retroversion.

The writer feels strongly that the uteropexy should be a rare operation and if any abdominal operation is to be done for a retrodisplacement in the woman past thirty-eight years of age, who has completed her family, total hysterectomy is the procedure.

Premenstrual tension and/or bloating seem to be becoming more and more a presenting symptom or an accompanying one. Headache, pre- and intra-menstrually is a frequent complaint along with tension. These are caused by water retention and can generally readily be relieved by a good diuretic started a week before and continued to menstruation. The ones more commonly used by me are Hygroton®, 100 milligrams every day, or NaClex®, one tablet daily.

If these fail, then it becomes necessary to inquire closely into the patient's home life concerning marital difficulties, financial worry, problems with children, working condition, adequate help, etc. Some of these we cannot alter and some the patient cannot alter.

Trichomonas vaginalis vaginitis is due to a flagellate, the Trichomonas Vaginalis. Its mode of entry is still debatable.

This infection which involves the cervix as well as the vagina constitutes about 20% of office gynecology.[1]

The symptoms consist of a thin, foamy, watery, greenish leucorrhea associated with pruritus vulvae, the pruritus frequently preceding the leucorrhea, and, if well established, a very sensitive vagina and dyspareunia. Examination reveals the leucorrhea and frequently petechiae of cervix and upper vagina and reddened introitus.

The diagnosis is made on a wet normal saline preparation by visualizing the flagellates in motion.

The treatment as in most instances is prophylactic and active.

The prophylaxis consists of proper hygiene; i.e. washing of hands after toiletry, cleansing from vulva toward and past anus, washing hands after introduction of medicament, douche nozzle, or tampon.[2]

The active treatment consists of having husband examined to determine if he harbors trichomonads in his prostate, no intercourse during active phase, having husband use condom until patient and he are cured. The medications used are as numerous almost as the doctors treating the disease. To name some; Trimagill® Vaginal Inserts, Tricofuron® Vaginal Suppositories, Floraquin® Vaginal Suppositories, Betadine®, 25% saline douche, vinegar douches. Personally I have found no oral or vaginal medication that works as well as the blotters and detail men indicate. At present a preparation called Flagyl holds a great deal of promise with cure results from 90 to 100%. However, this has not yet been released.

Candidiasis vaginae is most commonly caused by the monilia albicans in our practice. It is, with the advent of antibiotics, becoming a much more common cause of vaginitis and is also predisposed to by diabetes mellitus and therefore in persistent cases, it is well to investigate the patient for diabetes.

The symptoms again are pruritus vulvae, leucorrhea—white, thick (resembling cottage cheese), and dyspareunia.

The diagnosis can be made frequently on the character of leucorrhea, but if leucorrhea is not evident, it can be made on dry slide preparations and Nickerson's culture which is incubated at room temperature and can be kept in the office in individual containers.

The treatment here is much more satisfactory than in Trichomonas. The use of Hyva Vaginal Tablets, although messy and discoloring, has produced uniformly good results. If a jelly is preferred, good results can be obtained with Propion-Gel®. Sporatricin has been used with good results.[4] Here, as in Trichomonas, it is important that the treatment continue through the menses if it happens to occur during the course.

Non-specific vaginitis or hemophilus is due to pleomorphic bacilli and is accompanied by a thin, greyish, watery leucorrhea and pruritus vulva.

The treatment is Sterisil® Solution or Triple Sulfa Cream.[3]

Senile vaginitis, the most prominent symptoms of which are painful vagina and vaginal spotting, is best treated with an estrogenic vaginal cream such as Premarin®.

The examination reveals petechiae high in vagina and on the cervix and, in advanced cases, vaginal adhesions.

Condylomata accuminata, due to a virus, presents as wart-like growths over the vulva and in the vagina and are frequently accompanied by a vaginal infection and leucorrhea. The treatment of the condylomata per se is Podophyllin Solution, sixty grains to the ounce of alcohol, applied to each growth after the surrounding area has been coated with vaseline. The results are sometimes dramatic.

Diehl et al have reported 88% excellent results in the treatment of Trichomonas, Monilia, and non-specific vaginitis with Balcort.[5]

Cervical erosion, more properly called cervical ectropion, is a most frequent occurrence and can usually be treated with an office procedure. It has as symptoms leucorrhea and occasional vaginal spotting. It appears as a red, flat, non-umbilicated area of varying sizes and shapes on the cervical lips and usually extends from the external os out. Its margins may be circular or serpentine.

Generally cervical ectropion responds well to radial cauterization with the electrocautery. We use the ball point. The most advantageous time for treatment is within a week after the mensis ends in order to minimize post cauterization bleeding. We believe that the use of Furacin® Vaginal Suppositories or Aci-Gel® for ten to fourteen days afterwards is helpful in reducing discharge and secondary infection. The patient should be instructed to expect some discharge and some bleeding.

Chronic cervicitis causes leucorrhea, usually thick, and appears as an enlarged-in-diameter cervix. Our experience with use of antibiotics and chemotherapeutics in curing this has left much to be desired.

Chronic cystic cervicitis sometimes called cystic degeneration of the cervix again causes leucorrhea. It appears generally as an enlarged-in-diameter cervix with one to many cysts scattered about the cervical lips. If the involvement is not too great, we feel this can be treated in the office by electrocauterization within one week post menstrually and followed by Furacin Suppositories. Here, as in cauterization for ectropion, we feel that no douche should be taken or intercourse indulged in for a two weeks period subsequently, and the patient should be cautioned about discharge and bleeding.

Post irradiation cervical slough can be treated by medical debridement with a desoxyribonuclease fibrinolysis enzymatic preparation such as Elase®.

Cervical polypi which are attached just inside the external os, so that the base can be seen, may be removed in the office by amputation or torsion.

Cancer detection as an office procedure in gynecology offers a wonderful field for

doing an excellent job if it is done conscientiously and frankly.

The incidence of carcinoma in situ is estimated at 3.9% to .24%[6] and is felt to exist for eight to ten years before becoming invasive.[7]

Since 7.3% of carcinoma of the cervix occurs in women under thirty years of age,[8] it is felt that females presenting for examination in the office should have a pelvic examination which includes minimally a speculum examination.

In the Richmond area of 22,991, Papanicolaou smears done from August 1, 1960, through July 1, 1961, .56% were proven positive.[9] Weese has reported on private practice in New Orleans that these smears led to .25% proven carcinoma of the cervix.[10] The differences in statistics can be explained partially on a racial basis.

The Papanicolaou smear is reliable in 90% of carcinoma of cervix and 80% in carcinoma of endometrium.[11]

60% of carcinoma in women occurs in the breasts, sex organs, and skin—all readily accessible to examination in the office.[12] Cancer of the cervix is second only to cancer of the breasts and accounts for 11% of cancer and 55-65% of gynecological cancer. Diabetes is 16.7 times more common in women with cancer of endometrium.[13]

The cure rate for carcinoma in situ can be 100% if properly treated; the cure rate for invasive carcinoma cannot as yet approach this.

Because of the foregoing facts, we sincerely believe that the care of the female patient in the office is incomplete without making preparations routinely for cytology for the determination of whether or not the smear is suggestive or positive for cancer. We further believe that all females who present for general examination and/or for pelvic examination should have smears for cancer detection at least yearly examined by a competent pathologist, and that their breasts should be examined for nodules and nipple discharge. The discharge can be smeared. If indicated the smears can be done more often.

At this point, I would like to stress that a negative Papanicolaou smear does not preclude the presence of cancer. If the patient has symptoms suggestive of cancer of the cervix or endometrium or vagina, further studies such as cervical biopsy after a Schiller's test and endometrial biopsy should be carried out. A negative endometrial biopsy can, if necessary, be followed by a D & C.

The Papanicolaou smear is also useful in determining ovulation and adequacy of estrogen and progesterone if properly related to the menses. The endometrial biopsy in the office is of great value in determining whether or not ovulation has taken place and the patency of the cervical canal.

Tubal insufflation is not a difficult office procedure but should be properly related to the menses.

Here I present some procedures which I believe do not constitute part of office gynecology:

1. Conization of the cervix—either cold knife or electro.
2. Bartholinectomy.
3. Polypectomy when the base is not visible.

In summary and conclusion we have presented what we commonly see and do in the office and have tried to stress the importance of the routine breast and pelvic examination at least yearly for the female and feel it is most important that a physician trained well in cytology and pathology should work in close harmony with any physician doing gynecology.

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Brain Surgery with Hypnosis

A brain operation performed with hypnosis providing the major part of anesthesia was reported in the September 1st Journal of the American Medical Association.

The operation was performed on a 38-year-old man in Veterans Administration hospital, Indianapolis, to relieve epileptic attacks caused by an accidental gunshot wound in the right forehead, according to Drs. Som N. Nayyar, neurosurgeon, and John Paul Brady, psychiatrist, Indiana University Medical Center, Indianapolis.

Although there are some special difficulties associated with the use of hypnotic suggestion as a means of anesthetizing a patient, hypnosis has properties that make it preferable in certain situations. In this case, the brain condition had made the patient "hostile, suspicious and rather uncooperative." General anesthesia was undesirable because of the need to monitor the electrical activity of the brain during the procedure, and with local anesthesia the patient's disposition might have proved to be a problem.

Therefore, hypnosis was chosen. The patient was hypnotized the night before the operation to provide sound sleep and relieve anxiety. The patient was rehypnotized before the operation with a suggestion of deep anesthesia of the head region. During the four and one-half hour procedure, only small amounts of a local anesthetic and a pain-killing drug were needed.

Hypnosis provided "the best surgical conditions" for this type of operation, and perhaps the most important advantage was the relaxation, calm, and cooperation evidenced by a previously difficult patient throughout a long and anxiety-provoking brain operation in the wake state.

The authors said there apparently has been only one previously published report of a brain operation being performed with hypnosis.

Evaluation of Cytologic Results in the Diagnosis of Pulmonary Neoplasms

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The cytologic studies of sputa and bronchial washings have proven their value in the diagnosis of pulmonary neoplasms. An interesting evaluation of the results of such studies is presented.

FEW would doubt the value of cytologic studies of sputa and bronchial washings in diagnosing pulmonary neoplasms. The accuracy of these studies varies with methods of collection, adequacy of screening personnel, and availability of patient follow-up.

Cytologic services were set up at the Medical College of Virginia on a large scale beginning August 1, 1958. In addition to mass screening of women for cervical cancer, most patients suspected of harboring a lung neoplasm had their sputa and/or bronchial secretions examined by means of the Papanicolaou technique.

Material and Methods

It has been deemed worthwhile to analyze the results of smears from the respiratory tract from August 1, 1958, to December 31, 1959. During this period of 17 months a total of 666 smears were screened. The usual method was to obtain sputa from patients on three consecutive days, to be followed by bronchoscopy and collection of secretions if indicated. Some patients had as many as nine sputa examinations. Rarely was bronchoscopy repeated with more than one bronchial secretion studied on individual patients.

To prevent deterioration of cells in the sputa prior to processing, we have advised that all sputa collection be obtained in 70% ethyl alcohol. Isopropyl alcohol has also been found to be satisfactory. The patient is instructed to cough into a wide-mouthed 2-ounce bottle filled one-fourth with alcohol. The best material is usually obtained from the patient in the early morning upon rising. If sputum is scanty, a 24-hour collection may be obtained. Once the sputum is in alcohol, the material can be processed at leisure.

Our cytotechnicians prepare a minimum of four slides on each patient. With a minimum of three consecutive collections, 12 slides are thus screened on each patient. These should usually be sufficient for the purpose of finding tumor cells if a lesion has access to the bronchial tree.

The method of collection of bronchial secretions will vary with the bronchoscopist. The advantage of bronchial studies is that material can be obtained from the particular area the bronchoscopist is interested in. Normal saline is instilled into the bronchial tree in 2-3 cc. amounts. A total of approximately 10 cc. is usually used. All of the material is aspirated in a Clerf tube collector. The fluid may then be mixed with equal parts of 70% alcohol in order to maintain cell preservation. Both smears and

From the Laboratory of Surgical Pathology, Medical College of Virginia.

a cell block may be made from the bronchial secretions.

Results

In general, smears may be interpreted as belonging to one of three categories: negative, suspicious or inconclusive, or positive. The positive smears will be dealt with first, as it is extremely important that false positives be kept to an absolute minimum. In our institution two conclusively positive smears on a patient are considered practically equivalent to a positive tissue biopsy.

In considering the follow-up data on positive smears it must be remembered that we are now dealing with numbers of patients and not numbers of smears. In other words, if a patient had three smears of which only one was positive, the patient is tabulated only once as a positive. If two out of three smears are positive, the patient is still tabulated only once.

Table I shows the final results to date of the positive sputum smears. Forty-five patients were considered to have positive smears. Of these 29 were proven histologically to have carcinoma either by bronchial biopsy, lung resection or autopsy. Seven patients were considered beyond reasonable doubt to have cancers by roentgenography, and were treated by modalities other than surgery. Two of these patients probably had metastatic pulmonary tumors. One patient was confirmed grossly by bronchoscopic examination, but due to a myocardial infarction which ultimately led to the death of the patient, no tissue was obtained for histologic evaluation. Unfortunately there was no autopsy. Three patients were considered to have carcinoma of the lung on strong clinical grounds in addition to roentgen findings. One of these probably had a metastatic tumor. Only one patient was lost to follow-up. This leaves four patients who were falsely diagnosed as positive.

TABLE I
Positive Sputa

		Total
Total positive		45
Confirmed histologically	29	
Confirmed by roentgenogram		
Patients inoperable or refused thoracotomy	7 (2 probably metastatic)	
Confirmed grossly by bronchoscopy	1	
Confirmed grossly on strong clinical grounds and treated with X-ray therapy	3 (1 probably metastatic)	
Lost to follow-up	1	
False positive	4	
	—	
		45

In Table II are the results of the studies on bronchial secretions. There were 13 patients with positive diagnoses, and 11 of these were confirmed histologically. One was diagnosed by roentgenogram only, and this tumor was probably metastatic. One patient was confirmed by bronchoscopy. Gross tumor was seen in the carina and left lower lobe bronchus. A sudden fall of blood pressure, however, led to abandonment of the procedure, and tissue confirmation was never obtained. Death ensued and permission for autopsy was refused.

TABLE II
Positive Bronchial Secretions

		Total
Total positive		13
Confirmed histologically	11	
Confirmed by roentgenogram	1 (probably metastatic)	
Confirmed by bronchoscopy and roentgenogram	1	
	—	
		13

Suspicious smears leave both the clinician and pathologist with a feeling of frustration. A number of such diagnoses are still unavoidable, and are an indication of our human failings. Nevertheless the suspicious smears serve the useful purpose of indicating to the clinician that further studies are necessary in order to place the patient into a negative or positive category. Sometimes such a study will itself be a thoracotomy which is done for clinical reasons.

The final results on patients with suspicious diagnoses on sputa and bronchial secretions are seen in Table III and IV re-

spectively. It can be seen from a glance at these charts that suspicious smears still unearthed a significant number of proven cancers.

TABLE III
Suspicious Sputa

		Total
Total suspicious		23
Confirmed tumors histologically	12(1 probably metastatic)	
Confirmed tumors by roentgenogram	2	
Confirmed tumors on strong clinical grounds	2	
No tumors found	7	
		23

TABLE IV
Suspicious Bronchial Secretions

		Total
Total suspicious		9
Confirmed tumors histologically	5	
Confirmed tumors on strong clinical grounds	2	
No tumors found		
Patients ultimately proven to have tuberculosis and actinomycosis	2	
		9

Comment

It is believed that the cytologic results as tabulated in the accompanying tables speak for the value and accuracy of Papanicolaou smears in diagnosing pulmonary cancer. Considering the positive sputum smear there was a 10% false positive diagnosis. The four patients with such diagnoses had only one smear read as positive, so that errors other than the interpretation of the cytologist may have been responsible; e.g. a mix-up of cases, "floaters" on slides, etc. Patients with long-standing, pulmonary, inflammatory disease give the highest number of false positive results, and with added cytologic experience, the incidence of false positives can be reduced to a negligible degree.

In our laboratory we have found that sputum studies are of much greater value in diagnosing pulmonary neoplasms than bronchial secretions. This has been confirmed by other cytologic laboratories. We, therefore, find that positive cases discovered by sputa evaluation will often give negative results in smears of bronchial secretions. It is interesting, however, that once a positive diagnosis has been made from the bronchial secretion, the accuracy is almost 100% (see Table II).

Summary

1. An analysis of 666 consecutive cytologic smears of sputa and bronchial washings has been made over a 17 month period. The smears were made for the purpose of diagnosing pulmonary neoplasms.

2. Forty-five patients were considered to have positive smears, and of these patients four were ultimately proven not to have cancer. The reasons and significance of the 10% error are discussed.

3. False positives were not encountered in bronchial washings, but the latter proved to be less satisfactory than sputa in diagnosing individual cases.

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An Interesting Complication of Appendicitis

Chronic Appendiceal Abscess Containing Living Ascaris Lumbricoides

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An appendiceal abscess is reported which contained several surprises.

THE MUNDANE ASPECTS of the practice of surgery are occasionally enlivened through contact with a surgical problem marked by bizarre features. Such a problem was encountered recently at the Presbyterian Medical Center, a 165 bed mission hospital located in Chunju, Cholla Pukto, Korea. This case serves to call attention to the multiple complications attendant on intestinal infestation by Ascaris Lumbricoides, and is recorded below.

Case Report

Chang Sang Ok, a 33 year old Korean male, was admitted to the medical center on June 17, 1960, complaining of pain and a mass in the right inguinal region, belching, poor appetite, and polyuria of 14 days duration. The onset reportedly began after "overwork, hunger, and exposure in the rain". The patient stated he could not extend the right hip because of pain. There had been no vomiting, constipation, or diarrhea. The pain was described as continuous, dull and aching, and of sufficient severity to incapacitate the patient.

Physical Examination: Temperature was 100.6 degrees Fahrenheit. The pulse was 100, and the blood pressure 100/70. The patient was a poorly nourished male, appearing acutely ill, but not in acute distress. Pertinent physical findings were as follows: There was mild dehydration. A pterygium of the inner canthus of the left eye was present. Just above the right inguinal ligament was a hard tender mass. This was associated with some local muscle spasm, but no rebound tenderness was present. There was no tenderness or gibbus along the spinal column. Rectal examination was negative. Forcible extension of the right hip, (which the patient kept in mild flexion), caused considerable pain in the right inguinal region. The initial impression was appendiceal abscess, although some observers favored a diagnosis of psoas abscess due to tuberculosis of the spine.

Laboratory and X-Ray findings: The Hemoglobin was 12.5 gms., WBC 22,650, with 89% polymorphonuclear forms, 8% lymphocytes, 2% eosinophils, and 1% monocytes. Urinalysis was normal except for 2-4 granular cast per Hpf. Stool examination revealed 30 ascaris and two necator eggs in all fields. Culture of pus from the abscess cavity grew Escherichia Coli and Shigella Madampensis. Both organisms were sensitive to penicillin, streptomycin, and several broad spectrum antibiotics.

Course in the hospital: On the morning following admission an incision and drainage of the mass was performed. Much "foul odored pus" was evacuated, and the wound

From the Presbyterian Medical Center, Chunju, Cholla Pukto, Korea.

was drained. Post-operatively the patient was placed on penicillin and streptomycin and given a regular diet. The drain was completely removed from the wound on the fourth post-operative day. The patient was discharged from the hospital on the tenth post-operative day, still draining slightly from the operative wound. At the time of discharge the patient was advised to return in six to eight weeks for an appendectomy.

The patient was next seen almost six months later when he was readmitted on January 5, 1961, with a recurrence of his original symptoms. In the interim the patient had not felt well, had fatigued easily, and had had a poor appetite. As before, a tender mass was found in the right inguinal region, but this time there was induration, local heat and redness. Extension of the right hip proved painful, and there was pain on the right side upon rectal examination. However, the patient did not appear acutely ill.

Laboratory and X-ray findings: The hemoglobin was again 12.5 gms., and the WBC 15,200. Urinalysis was negative. Stool examination on January 6 revealed one necator and 49 ascaris eggs in all fields, and repeat stool examination on January 19 still showed 18 ascaris eggs in all fields, in spite of the fact that the patient had been treated for both ascaris and necator in the interim. X-ray of the spine demonstrated no abnormality. A barium enema revealed a thin twisted projection of barium about four inches long, projecting downward and medially from the cecum. This was assumed to be the appendix. After operation, culture of pus from the abscess cavity revealed only Pseudomonas aeruginosa, which was sensitive to streptomycin only.

Course in the hospital: After preparation of the bowel an exploratory laparotomy was done. At operation the appendix was found to be free and mobile except for its tip which was attached to an inflammatory mass lying on the psoas muscle. As the appendix was removed, a fistula between the tip of the appendix and the mass was demonstrated. Following this, the mass was opened and a "large" amount of pus and four living Ascaris lumbricoides came forth. The abdomen was then closed with a drain placed in the abscess cavity. Post-operatively the patient recovered quickly, and was discharged on the tenth post-operative day, at which time the wound was completely healed.

Pathology Report: "The specimen is an appendix measuring 7 cm. in length. It is purple and markedly indurated, though the external surface is smooth, and there is a small opening at the tip. Microscopic examination shows the wall to be scarred and infiltrated with eosinophils. A section taken near the tip reveals occasional infiltration with polymorphonuclear cells. Diagnosis: Appendix, scarring and fistula formation."

Comment

We have presented a case of appendicitis which resulted in abscess formation on the psoas muscle, with a fistulous tract between the lumen of the appendix and the abscess cavity. By passing through this fistula four Ascaris lumbricoides took up residence in the abscess cavity. How long these guests remained in the abscess before operation is not known, nor do we know whether they ventured back and forth between domicile and intestine.

Aside from the interest occasioned by its bizarre features this case calls attention to the multiple complications which may arise from intestinal parasitosis. This has been done by others.[1,2] However, it is certain that such complications are more common in countries like Korea where the rate of intestinal infestation by parasites is very high. In our own clinic infestation with Ascaris lumbricoides is over 50%. Among in-patients, these ubiquitous worms have been found in the appendix, in the pancreatic duct, in the common bile duct, and lying within and apparently causing a perforation of a gastro-jejunal anastomosis. Thus the

propensity of these intruders for causing trouble is considerable, and in these days of increased international travel American citizens may more often acquire these unwanted guests. Consequently intestinal parasitism should be remembered by surgeons when considering surgical conditions of the abdomen.

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New Drug Against Resistant Germs

A "promising new antibiotic" has produced good results in patients with infections resistant to penicillin, it was reported in the September 1st Journal of the American Medical Association.

The drug, generically termed oxacillin, was designed to fight penicillin-resistant strains of staphylococci, bacteria which present a thorny medical problem because of their prevalence and increasing resistance to other antibiotics. Studies have shown that strains of staphylococci are resistant because they produce penicillinase, the biologic antagonist of penicillin.

Oxacillin is a synthetic penicillin which resists destruction by penicillinase, William M. M. Kirby, M.D., Lona S. Rosenfeld, M.D., and Jean Brodie, B.S., department of medicine, University of Washington School of Medicine, Seattle, wrote in the Journal.

On the basis of laboratory tests and a study of 68 patients, the researchers concluded that oxacillin is a potent and effective drug when administered orally for the treatment of penicillin-resistant infections. Side effects were minimal. Good results were obtained in 61 of the 68 patients and rated indeterminate in the other seven.

At the time treatment with oxacillin was started, 18 patients were considered seriously ill, and in each of these "there seemed a clear-cut response to the antibiotic, and the patient was cured." The seriously ill included six patients with pneumonia, five with severe head and neck infections, and three with infected burns.

In laboratory tests, oxacillin was compared with three other synthetic penicillins and found to be five to eight times more active than one of them (methicillin), against penicillin-resistant staphylococci.

Osteomyelitis of the Frontal Bone as a Result of the Common Cold

Presentation of a Case Report

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A case is reported with a serious and rare complication of the common cold.

CASES OF OSTEOMYELITIS of the frontal bone as a sequela to severe frontal sinusitis, usually of considerable duration are thought not as frequent since the widespread use of antibiotics, reported in the world literature in significant numbers.[1,2,3] This particular case differs from those reported, however, in the very short duration of symptoms of obvious sinusitis, in the lack of febrile response on the part of the patient, and in the fact that until the osteomyelitis with associated osteolysis had become widespread the patient had no other symptoms than those of a common cold with a rather mild rhinorrhea.

Presentation of a Case

The patient is a fourteen year old Negro female (P. C., Hospital No. 528-092) who was admitted to the University Hospitals of Cleveland on December 18, 1957, after having been seen in the Otolaryngological Outpatient Clinic with the chief complaint of a painless "swelling of the forehead which started in the last two days". The patient had been in good health until three weeks prior to this time. During this period she had suffered the onset of what appeared to be a common cold. Nevertheless, she continued to attend school and appeared perfectly well as far as the parents were concerned and as far as could be ascertained, she had exhibited neither chills nor fever during this period of time. A thick yellowish discharge had been noted from her nose for about one week prior to admission but had not impressed the patient, her family or the school teacher as being extraordinary either in amount nor in quality. Not until two days before visiting the Outpatient Clinic was anything out of the ordinary noted. This was the beginning of a symmetrical painless swelling of the patient's forehead without onset of other signs or symptoms.

Following a thorough examination in the Otolaryngological Clinic, the patient was admitted to the hospital. Careful questioning revealed that the patient's throat had been slightly "scratchy" for the previous three weeks but that there had been no headaches, supraorbital swelling, tenderness, head trauma, erythema or anything else to suggest more than the presence of a common cold. There was no previous history of sinusitis or of infection of the scalp. The child's hair and scalp were clean and all hygiene was reasonably good. Past history and review of symptoms were entirely negative.

Physical examination revealed a well developed, well nourished, Negro female in no

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acute distress with a symmetrical hot, fluctuant mass overlying the entire frontal area and projecting about three inches from the cranium at its deepest point. Examination of the eyes by the ophthalmologist was entirely within normal limits. The ear canals were clear with normal tympanic membranes and good light reflexes. There was a mucoid discharge from both nostrils and the pharynx was mildly injected, oral hygiene was fair. There was no cervical adenopathy, the lungs were clear and the remainder of the physical examination was within normal limits. The cranial nerves were all intact and there was neither sensory nor motor deficit. The deep tendon reflexes were reactive and equal bilaterally. Vital signs were temperature 38.5° Centigrade, pulse 120, respiration 24, blood pressure 110/70.

Hospital Course

On admission the patient was placed on strict bed rest with continuous application of hot sterile compresses to the area of the frontal sinus. Intravenous penicillin was administered throughout the night, 2,000,000 units in 2000 cc. of 10% Levugen in addition to 600,000 units intramuscularly every twelve hours. X-rays on admission showed acute frontal and maxillary sinusitis with osteomyelitis of the frontal bones.[4]

On the morning following admission the area of fluctuance over the frontal sinus had begun to point at about the midline and the patient's vital signs were stable with a diminution in temperature from a high of 39.5° Centigrade during the early evening to near normal levels. The area over the frontal bones was prepared and the patient taken to the operating room, where, under Cyclopropane anesthesia the skin was opened with a transverse incision following Langhers lines and approximately 100 cc. of thick, creamy pus was removed with adequate culture specimens taken. A digital exploration then revealed the outer table of the frontal bone in the supraorbital area to be entirely absent, having been destroyed from the supraorbital ridge to within two centimeters of the frontoparietal suture on both sides. The inner table was, however, still intact. Three Penrose drains were inserted to the depths of the abscess cavity and were sewn loosely to the skin edges which was packed open and dry sterile dressings applied.

The patient was then continued on aqueous penicillin, 2,000,000 units daily intravenously in 1000 cc. of 10% Levugen and 1000 cc. of 5% D/S in addition to 600,000 units of aqueous Procaine penicillin intramuscularly every twelve hours. Continuous hot, moist compresses were also used. Drains were recessed daily and on the fourth hospital day were removed and further debridement of the frontal sinus area was carried out to remove remaining necrotic material. The following day the patient's temperature which had remained between 38° and 39° Centigrade returned to normal. Culture and sensitivity reports then available showed the infecting organism to be an anaerobic streptococcus viridans sensitive to all generally used antibiotics. Ophthalmological consultation having by this time been obtained, it was also determined that there was no involvement of either orbit or its contents by the infecting organism.

On the fifth hospital day the patient became acutely nauseated and began to vomit frequently. Penicillin was discontinued and Erythromycin, 250 milligrams every six hours was begun. Thorazine, 25 milligrams every four hours for twenty-four hours sufficed to control the vomiting.

By the eighth hospital day the wound was entirely clear and on the following day the patient was allowed up in a chair and started on a normal diet and occupational therapy. At this time also new frontal sinus x-rays were obtained which showed a decrease in the opacity of the right maxillary antrum and left frontal sinus.

The patient continued her afebrile course but on the eighteenth hospital day the frontal sinus was noted to have opened into the abscess cavity and started draining freely. X-rays at this time revealed continuation of the osteomyelitic process with sequestrum

formation in the left frontal bone and continuing frontal and left maxillary sinusitis. At this time the chemotherapeutic regime was fortified by the addition of Chloromycetin. Neurosurgical consultation was also obtained and the immediate possibility of the presence of a brain abscess was ruled out.

One month after admission the patient was again taken to surgery where a bilateral frontal sinusectomy and left frontal bone sequestrectomy was performed. The inner table of the right frontal bone was intact but the left frontal bone inner table was resected to dura in its entirety. The wound was again packed open with rubber drains in place.

Two weeks later a small fistulous tract remaining over the left frontal area following the removal of the drains closed spontaneously and two days later a secondary closure of the now clean operative wound was carried out under local anesthesia.

The patient was discharged on the fiftieth hospital day to be followed in the Otolaryngological Outpatient Clinic, cranioplasty being the long term objective should the osteomyelitis remain quiescent for a suitable period, thought to be a maximum of two years.

The patient has been followed at regular intervals to date (10-5-61) at the Otolaryngological Outpatient Clinic and x-rays have been taken. The patient is completely asymptomatic. The residual deformity is not significant enough to warrant plastic surgical intervention at this time and x-rays are completely within normal limits except for the surgical defect, the maxillary sinusitis having cleared up at this particular time.

Conclusion

A fourteen year old Negro female who presented herself with osteomyelitis of the frontal bone as a result of a common cold which having been taken care of by chemotherapeutic methods as well as radical surgery of the frontal sinuses has responded without further plastic surgical intervention.

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Drug Industry Threatened

I am convinced, in essence, that there should be no changes in any laws which would throttle the development and marketing of valuable new drugs or would curtail the economic incentives that spur our progress. Unless such stifling proposals are intelligently and vigorously opposed and defeated, the drug industry, as it exists today, will vanish as a free and private industry.—Elmer B. Vliet, Chairman of the Board, Abbott Laboratories, to American Society of Oral Surgeons.

Arrhenoblastoma, or Granulosa Cell Tumor?

Report of Case, and Review of Literature

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This case report concerns an ovarian tumor difficult to diagnose precisely.

THE CASE about to be reported is of interest because it was first diagnosed as arrhenoblastoma, both clinically and pathologically, but was later diagnosed pathologically as a granulosa cell tumor. The defeminizing symptoms and signs, and even some of the pathological findings, pointed to arrhenoblastoma. It may be very difficult to distinguish between these two types of tumors under the microscope, even with permanent sections.

Case History

Mrs. L. R., Case A-24046, entered the Roanoke Memorial Hospital in April 1953. The primary symptom for which this patient sought advice was amenorrhea. This twenty-eight year old white female had had an incomplete abortion at three months in 1946, and a complete abortion at five months in 1947. She had the average 28 day menstrual cycle until sixteen months after the birth of her second child in March 1950.

During the fall of 1951 she developed hypomenorrhea and oligomenorrhea, the cycle occurring approximately at fifty day intervals. She would notice lower abdominal cramps periodically, but these were not associated with menses. Her last accurately remembered period was August 4, 1951. Following a BMR of minus 14%, she was given small doses of thyroid, parenteral and oral estrogen, and progesterone, which induced a regular menstrual flow. Cyclic hormone therapy was continued for three months, and this was effectual in producing withdrawal bleeding. Hormone therapy was discontinued after the three month period, and the hypomenorrhea-oligomenorrhea recurred. However, since 1952 (ten months before admission) she had had amenorrhea.

No other definite symptoms or signs, such as flattening of the breasts, deepening of the voice, hirsutism, or enlargement of the clitoris, were noted.

Repeated pelvic examinations revealed no pathology until nine days before admission, when a firm mass, approximately 5 to 6 cm., was found in the left ovary. At this time no enlargement of the clitoris was noted, nor were any other masculinizing, or rather, defeminizing, symptoms noted.

Impression at this time was solid tumor of the left ovary; possible arrhenoblastoma.

A chest film prior to surgery was reported normal. All laboratory data were normal; RBC 4,000,800; WBC 6,500; normal differential. Urinalysis was normal. Neither 17-keto-steroids nor estrogen determination of the blood and urine were done.

Surgery consisted of a D & C, left oophorectomy, bisection of right ovary, and appendectomy. At operation, no endometrium was obtained from curettement. The left ovary was 5 cm. in diameter, firm, and colored yellow upon section. (See Figure No. 1). Exploration of the upper abdomen was negative. The uterus was normal. The right ovary was bisected, and appeared normal.

From the Department of Obstetrics and Gynecology, Roanoke Memorial Hospital.

Her post operative recovery was uneventful. Her menses returned one month after surgery, and have occurred with a normal flow every 25 to 28 days.

In 1960 she was delivered of her third child uneventfully. Her periods have recurred, and have remained normal. Frequent pelvic examinations, including Papanicolaou smears, have been entirely normal.



Fig. 1.

Pathological Report (by Dr. James C. Gale, Pathologist)

Gross

Specimen 53-S-673 consists of an ovary and appendix. The ovary measures 5 x 3½ x 3½ cm. The capsule is smooth. When the ovary is sectioned, it is found to be made up almost entirely of tumor. The tumor is yellow in color on cut surface, and measures 4½ x 3¼ x 3¼ cm. It is solid except for a few small areas of cystic degeneration.

Microscopic

Sections are included from a number of areas through the tumor and the ovary. The tumor varies some in its histological pattern, though it is fairly uniform. In an occasional area there is a trabecular pattern. In most areas the tumor is relatively solid. At the edge of the tumor, in some areas, there is a rim of ovarian cortex with a few follicles. In most areas the tumor cells are rather uniform in size, being medium size with fairly large nuclei and rather scant cytoplasm. Some of the cells tend to be spindle shaped, but generally they do not appear spindle but are relatively round in shape. The cytoplasm of the individual cells is not entirely distinct one from the other. An occasional mitotic figure is noted.

This tumor is assumed to be an arrhenoblastoma. This diagnosis is based partially on the histological pattern, but also in part from the patient's history. She is reputed to have had amenorrhea for the past year, and at surgery, endometrial curettings from the uterus were insufficient for examination.

The tumor slides were sent to Dr. Emil Novak of Baltimore, and to the Duke University Hospital for opinions as to the proper diagnosis. In an informal consultation report to me from the Pathology Department of Duke University Hospital, the opinion was expressed that the tumor was probably an arrhenoblastoma. Dr. Novak indicated that his provisional diagnosis was arrhenoblastoma, but stated that he was sending the tumor to other members of the Ovarian Tumor Registry for their opinions.

Pathologic Diagnosis

Left Ovary: Arrhenoblastoma.

The microscopic sections were reviewed in 1959 by members of the Ovarian Tumor Registry of the American Gynecological Society. They agreed on the diagnosis of feminizing mesenchymal tumor.

> "Some felt that this was a true granulosa cell tumor, and others granulosa thecoma. Although in a few areas of the tumor there are suggestions of cords, these are certainly not thoroughly suggestive of the type found in the arrhenoblastoma. We do, of course, recognize that stromal tumors of the ovary can in certain cases apparently produce 17-keto-steroids or similar masculine steroid. However, none of these tumors have been characterized by rather undifferentiated stroma. These cells in this tumor seem more specifically of the granulosa variety."

Discussion

Arrhenoblastoma, a masculinizing tumor of the ovary, in its truest sense is a rare tumor, but not as uncommon as was formerly believed. A review of the world literature reveals that well over 150 cases have been reported. The size may be from a few mm. to more than 10 cm. in diameter. The consistency is usually firm. Arrhenoblastoma of the ovary is characteristically a tumor of young women, twenty to thirty years old. The tumors tend to have the same gross anatomic features as the granulosa cell and theca cell growths, and are usually unilateral. The symptoms at first are defeminizing, followed by masculinization—flattening of breasts, amenorrhea, followed by hirsutism, deepening of the voice, and hypertrophy of the clitoris. Arrhenoblastomas are generally considered to be of a low degree of malignancy. Removal of the tumor usually causes most of the symptoms to regress, and re-feminization occurs. The disappearance of the genuine masculinization phenomena is generally slower, and may be incomplete.

After the excision of arrhenoblastoma, normal pregnancies have occurred.

Recurrences occur in about 15% of the cases, but the recurrence may be many years later.

In almost all of the cases in the literature, only the level of crude 17-keto-steroids is reported. In the vast majority it is normal, or slightly elevated, in ovarian arrhenoblastoma. There are several cases with markedly elevated 17-keto-steroids. Some texts speak of a method of differentiating the alpha and beta 17-keto-steroids. Fractionation may lead to some clue. Virilizing ovarian tumors do not cause an elevation of the beta fraction, so that if this phenomenon does occur, ovarian tumor can be ruled out, and adrenal pathology may be suspected as the cause of virilism.

There is no classical picture for this tumor. If it secretes a very high level of androgenic substance, the 17-keto-steroids will be high. If the androgens are lower, the output of metabolites will be low. The dominant cells, whether Leydig, Sertoli, or adrenal-like, will determine the degree of endocrine secretion, with its subsequent effect on the patient.

Granulosa cell tumor of the ovary comprises probably 10% of all solid malignant ovarian neoplasms. They may occur at any age. They may produce pain, but the distinct symptomatology is dependent upon the capability of the tumor cells to produce estrogenic hormone. Therefore, if the tumor occurs during reproductive life, the clinical syndrome is not so striking as it would be in the prepubertal or postmenopausal phases. No change would occur in secondary sex characteristics during the reproductive years. In the latter, one would experience symptoms of hyperestrinism, such as hypertrophy of the breasts, and excessive menstruation. However, hyperestrinism may be associated either with normal menstruation, hypermenorrhea, or amenorrhea.

When granulosa cell tumor occurs in young children, clinical manifestations of precocious puberty are evoked (menses, hypertrophy of breasts, development of axillary and pubic hair, development of external genitalia, and hypertrophy of uterus). With the removal of the tumor, these manifestations regress.

When granulosa cell tumor occurs in the post-menopausal group, a re-establishment of periodic menstruation-like bleeding occurs, but usually no effect is seen upon secondary sex characteristics.

Malignancy of this group is less than ovarian carcinoma in general, which is 15% of ovarian tumors. The clinical malignancy rate was 28% in a follow-up study of 32 cases by Novak and Brawner. These tumors may recur after long intervals. Recurrence may be rapid, but it is more likely to be later (as in arrhenoblastoma); that is, fifteen to twenty years after the original operation.

Comment

Israel states that the principal tumor of the ovary that causes amenorrhea is an arrhenoblastoma, and while we usually think of granulosa cell tumor as being associated

with increased, and irregular, bleeding, amenorrhea is quite common.

At the Mayo Clinic, in a series of twenty-three patients with granulosa cell tumor, fifteen had periods of amenorrhea that lasted from one to seven years. In most of these cases there eventually was excessive bleeding. When amenorrhea is associated with a granulosa cell tumor, it is usually because of a stimulated endometrium. In one of these patients the endometrium was atrophic, instead of proliferative or hyperplastic. Scully stated: "I don't know how to explain this phenomenon unless the tumor was putting out some type of steroid other than an estrogen that was depressing, rather than stimulating, the endometrium."

Summary

In conclusion, a case of granulosa cell tumor has been presented which was orginally diagnosed as arrhenoblastoma, and recent literature has been reviewed.

It has been suggested by others that, because of the inherent ability of granulosa cells to differentiate in either an estrogenic or an androgenic direction, the term "arrhenoblastoma" be discarded, and that this tumor be reclassified as a "masculinizing diffuse granulosa cell tumor."

Busby and Anderson stated that the history is frequently the only clue to the diagnosis. Evans, in discussing Schneider's suggestion that granulosa cell tumors be classified according to their degree of differentiation, said that the inadequacies of such classifications are best attested to by the discrepancies in microscopic diagnosis of the same tumor by different, competent, pathologists.

Acknowledgements

The author wishes to express his gratitude for the editing by his associate, Dr. Luther J. Hamlett; for assistance in research by Mrs. Stella Barbee, Librarian at the Roanoke Memorial Hospital; and to Dr. James C. Gale, Pathologist, Roanoke Memorial Hospital, for repeatedly reviewing the pathology in this case.

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Pneumococcal Meningitis in an Adult

A Case Report

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A case of severe pneumococcal meningitis with unusual features is reported. Vigorous treatment produced a successful outcome.

THIS IS A REPORT of a case of pneumococcal meningitis in an adult male with successful therapeutic outcome. The pertinent literature is reviewed.

Case

R.H., a 43 year old white male electronics mechanic was well until December 8, 1961, when he noted a decrease in auditory acuity in the left ear accompanied by drainage from his ear canal. He had had "a bad cold" in early November, 1961. He had known of ear disease for many years; however, he had experienced no ear drainage since his teens. On December 11, 1961, he consulted a physician who noted redness of the tympanic membrane as well as purulent drainage from the middle ear. He was given 1.2 million units of procaine penicillin. On December 12, 1961, he felt more ill, developed frontal headache, more notable fever. On December 13, 1961, headache became quite violent and the patient became obtunded. Seen at home, he was noted to exhibit nuchal rigidity and accordingly was admitted to the Norfolk General Hospital.

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Physical examination on admission revealed a rectal temperature of 102.2 degrees; pulse was 88; blood pressure, 130/80. He was obtunded, with decreased attention span and lethargy. There was marked nuchal rigidity. The optic disks were hyperemic and somewhat edematous. There were no focal neurological findings. Auditory acuity was decreased in both ears. The attic and shrapnell's area of the left drum were hyperemic; the remainder of the drum was thickened and dull. The right drum was normal. There was no postauricular tenderness on either side. Admission hemoglobin was 14.4 grams%; hematocrit was 47%; leucocyte count was 14,050 with 86% segmented polymorphonuclear neutrophiles, 2% stab forms, 4% lymphocytes, and 8% monocytes. A lumbar puncture revealed an opening pressure of 495 mm. of spinal fluid, was cloudy with 5500 cells, 98% polys, protein of 185 mg.%; on smear many gram positive diplococci were seen; on culture pneumococci grew-out in pure culture. Mastoid x-rays were reported as "bilateral sclerosing mastoiditis, more on the left side."

Therapy was initiated with two million units of aqueous penicillin intramuscularly every three hours, continuous intravenous drip of 50 million units of aqueous penicillin in 24 hours, three grams of chloramphenicol 1.M per 24 hours in divided doses. Within 12 hours of initiation of therapy he was noticably less obtunded. However, 24 hours after initiation of therapy a right abducens paralysis developed with rotatory nystagmus on lateral gaze to the right. At this point prednisone 40 mg. per day by mouth

was initiated. On the third day after hospitalization he was even clearer mentally; nuchal rigidity persisted, but was less; fever was lysing. Tympanic membrane hyperemia had subsided. By the fifth day he was afebrile and the neck had become supple. On the sixth day, repeat lumbar puncture revealed an opening pressure of 224 mm. of spinal fluid; the fluid was clear and colorless with 70 white blood cells, 60% polymorphonuclear leucocytes and 81 mg.% protein concentration; the fluid was sterile on culture. On day eight, he underwent a modified radical mastoidectomy on the left. The mastoid was replaced by friable granulation tissue. There was a defect in the petrous bone with exposed duramater. This area was debrided and skin grafted. He tolerated the procedure uneventfully. On day seven, the right abducens paralysis began to clear and by day ten had cleared completely. He was discharged on December 27, 1961, two weeks following hospitalization, apparently cured. Oral penicillin was continued for an additional week. When seen one month following discontinuance of therapy, he was asymptomatic with operative area healed.

See chart 1 for graphic outline of fever curve and therapy.

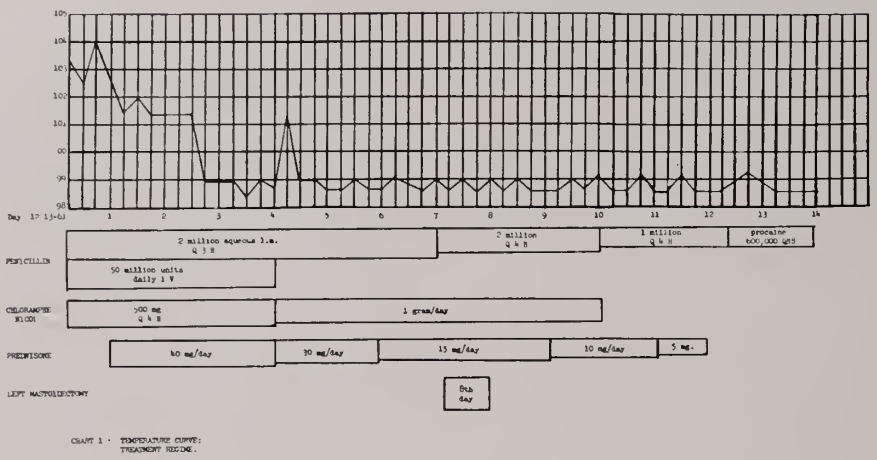


Fig. 1.

Discussion

This case of pneumococcal meningitis presented several interesting features. Noteworthy was the long asymptomatic interval of some twenty years between episodes of ear drainage. Of note also was the fulminating course of three to four days between onset of ear symptoms and the semi-stupor indicative of gross purulent contamination of the subarachnoid space. The pathology demonstrated at the time of mastoidectomy readily explained the progression from otitis media to mastoiditis to petrositis to inflammation of the duramater to meningitis. The defect in the petrous bone opened the dura to infection. His chronic mastoiditis, although long apparently quiescent, was a sword of Damocles. Such chronic mastoid disease remains an otological surgical problem in this antibiotic era.

Our therapeutic regime was based on the known pathology and bacteriology of this disease. Although the pneumococcus is sensitive to many antibiotics, two factors impede antimicrobial bactericidal effectiveness; first is the highly viscous, grossly purulent exudate which accompanies this disease and second is the infecting focus with its nidus of fibrotic, granulomatous, and necrotic tissue which acts as a barrier to antibiotic penetration. The operation of these factors, despite antibiotic sensitivity of the micro-organism, has resulted in a persistently high mortality in the adult with pneumococcal meningitis despite massive parenteral antibiotic therapy. Mortality

figures on more than 800 cases, in patients of all ages from 14 clinics, ranged from 8% to 68% and averaged 28%.[1] The mortality in the most recently reported series of 43 adult cases treated between 1939 and 1959 was 65%.[2] The inflammatory exudate in the acute stage induces cerebral edema with brain stem compression, in the subacute stage, subdural empyema, cerebral thrombophlebitis, and cortical necrosis; in the chronic phase, organization of exudate with obstructive hydrocephalus.[1] The inflammatory exudate also exerts bacteriastatic effects on the pneumococcus which prevent the bactericidal action of penicillin.[3] Corticosteroids were employed in an effort to reduce this inflammatory exudate. Recent laboratory and clinical observations form a rational basis for their employment. In experimental pneumococcal infections of the skin, Germuth, Ottinger and Oyama observed that prior administration of cortisone reduced local inflammation.[4] In the infected skin of the treated animals leucocytes were sparse and blood vessels normal; the lesions of the control animals contained numerous neutrophils, hemorrhages, edema, necrosis and thrombosis of small blood vessels. In clinical studies in pneumococcal pneumonia, Kass, Ingbar and Finland found reduction in inflammatory response induced by steroids.[5] Others have implicated bacterial hypersensitivity as an exudate inducer.[4] Such hyperreactivity in a sensitized individual apparently produces a leucocytic-protein outpouring. Steroids might block this effect. There have been several case reports assessing corticosteroids for their antiphlogistic effect in pneumococcal meningitis. Ribble and Braude reported twelve patients with pneumococcal meningitis treated with antibiotics and steroids with only one death. In series of 43 cases of pneumococcal meningitis reported by Olsson, Kirby and Romansky,[2] seven patients received steroids; however, four of these died. Spink and Su[6] treated five patients with steroids and antibiotics with no mortality. Our patient received prednisone from day two through twelve of his meningitis. It was instituted when he developed a right abducens paralysis after 24 hours of massive antibiotic therapy. This suggested an increase in intracranial pressure from increased outpouring of exudate. We employed prednisone in conventional dosage.

Penicillin was employed intramuscularly and for four days intravenously in massive dosage to insure penetration of adequate antibiotic levels across the blood brain barrier into the copious purulent exudate and into the fibrotic granulomatous infectious foci. We employed two million units of aqueous penicillin every three hours intramuscularly for the initial week of intensive therapy. We also employed 50 million units of aqueous penicillin per 24 hours by continuous drip for the initial four days of intensive therapy. Spink and Su recommended at least one million units per hour intravenously initially and then the equivalent dosage intramuscularly: that is, four to five million units every four to six hours.[6] In Current Therapy,[7] 1961, the recommended dosage is two million units of aqueous penicillin every three to four hours. We elected to use both intramuscular and intravenous therapy to insure continuous antibiotic levels when technical difficulties might interrupt intravenous administration. Chloramphenicol was added despite the reported lack of benefit from dual antimicrobial therapy.[2] Spink and Su employed sulfonamides as their auxiliary agent.[6]

Mastoidectomy was performed after a week of intensive corticosteroid-antibiotic therapy. By then spinal fluid pressure had become normal, abducens paralysis had cleared, spinal fluid culture was sterile, clinically the patient was relatively asymptomatic.

Friable granulation tissue, thin purulent exudate and petrous bone defect opening in the dura to soilage were discovered in the mastoid area at time of surgery. Their findings indicated the wisdom of this surgery. Cessation of antibiotics without excisional drainage of the inciting inflammatory focus

of infection would have invited recontamination of the subarachnoid space. Parenteral penicillin was continued for a week post-operatively. Oral penicillin was continued for an additional week. Spink and Su recommended parenteral penicillin therapy for a minimum of two and preferably three weeks.

When seen one month following discontinuance of therapy, the patient was asymptomatic and had returned to work. The surgical site had healed and was free of drainage.

Discussion

We have reported a case of pneumococcal meningitis in a 43 year old male. The left mastoid was the focus which contaminated the subarachnoid space. The outcome was a successful one. Therapy consisted of massive parenteral penicillin and chloramphenical and oral corticosteroids. A mastoidectomy was performed one week following institution of massive antibiotic therapy. The literature was briefly reviewed with reference to the pathophysiology of the morbidity and mortality and rationale for antibiotic-corticosteroid therapy. The place of otological surgery was emphasized.

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The Herculean Task of Communication

If there were no pharmaceutical advertising, new lifesaving drugs would be withheld from the critically ill patients either because the physician did not even know the new drug existed, or because he did not know its exact indications and how to administer it safely and effectively. Given the present rate of medical progress and the consequent production of new curative agents, the competitive stimulus is, I believe, the only force adequate for the Herculean task of their introduction to the medical profession. If, in order to use new medicines effectively and safely, the doctor had to depend upon the grinding out of adequate information by a centralized bureaucracy, progress in their use would be hideously slow.—Francis Boyer, Chairman of the Board, Smith Kline & French Laboratories, in New York Academy of Medicine *Bulletin*, March 1962.

Mental Health....

HIRAM W. DAVIS, M.D.

Virginia Survey of Phenylketonuria

Within recent years it has become apparent that it is possible to prevent phenylketonuric (PKU) infants from becoming mentally retarded provided they are diagnosed early (within the first few months) and are placed on low phenylalanine diets. Continued investigations are needed, however, and hold exciting promise for further understanding and control of this problem as well as other bio-chemical defects such as galactosemia, "Maple Sugar" disease, and the newly discovered Hartnup's disease which cause mental retardation.

Beginning July 1962, the Virginia Department of Mental Hygiene and Hospitals is undertaking a five year State-wide demonstration project in case finding, follow-up and control of phenylketonuria. The project is to be administered through the Lynchburg Training School and Hospital with Dr. Benedict Nagler serving as the Director of the project. This program is co-sponsored by the Community Services Branch of the National Institute of Mental Health which is providing technical as well as financial assistance. The grant for the first year totals $35,287 and is renewable at the end of each succeeding year.

With the cooperation of physicians and health, education and welfare agencies the project will seek to promote coordination of effort in the prevention and treatment of mental retardation due to phenylketonuria. This will include surveys to determine what partial or complete programs presently exist within the State.

During recent years similar programs have been undertaken elsewhere, but no single state has yet attempted to do a pilot project of this type on a total across-the-board phenylketonuria program, including studies of families of the patients.

The closest approach to a total program has been carried out by Centerwall in the Los Angeles area and by the research and treatment programs of the State of New York.

Phenylketonuria, previously called oligophrenia phenylpyruvica, is the result of an inborn error of metabolism. Infants having the condition cannot properly metabolize phenylalanine, an essential amino acid. This abnormal metabolism is usually associated with mental retardation of moderate to severe degree. It is remarkable, however, that these children are normal at birth and during early infancy. Failure to progress as expected is noted only after three to five months of age. By one year of age they are usually obviously retarded.

In addition to mental retardation other clinical features include certain neurologic and skin symptoms. Often these children are blue-eyed and more blond than the parents and normal siblings; are withdrawn and have behavior problems, and have a characteristic musty odor. Though the mechanism by which the symptoms are caused has not been fully clarified, the abnormal accumulation of phenylalanine apparently prevents normal brain development.

Phenylketonuria is easily diagnosed by a urine test for phenylketone bodies and by blood tests for phenylalanine. Phenylketone bodies usually appear in the urine when the blood phenylalanine exceeds about 15 mg. per 100 cc. of plasma.[6]

The same tests are used for diagnosis and for checking the efficacy of dietary management. To confirm a diagnosis, the urine tests should be followed by plasma or serum tests for phenylalanine.

HIRAM W. DAVIS, M.D., *Commissioner, Department Mental Hygiene and Hospitals.*

Phenylketonuria, a genetic disorder, is due to a single recessive gene. About one in seventy persons is a carrier of this gene. If two of these carriers marry, some of their children may inherit one abnormal gene from each parent. Such children will have phenylketonuria. According to mendelian laws, one-quarter of the children from marriages between carriers will have PKU. The other children will have at least one normal gene. Some couples of course may have one or two children with PKU before they have any normal children; some may never have a child with PKU. If it is determined that a young person is a carrier when he or she is married, the husband or wife should also be tested. If the marriage partner is a carrier also, then the parents must have each child followed carefully after birth until it is determined whether or not the child has PKU. A test has recently been discovered that can, with 80% effectiveness, tell whether the parents carry the recessive gene for phenylketonuria.[3]

The PKU case finding program will include screening of mentally retarded populations. Beginning with the patient group at Lynchburg Training School and Hospital, it will be extended to other public and private institutions for the mentally retarded and mentally ill, mental hygiene clinics, and on a pilot basis, to children who are or normally would be assigned to special classes in school. Epidemiological and genetic studies have consistently shown that PKU is found on the average of one-half to one per cent of the institutionalized mental defectives.[5]

Although, it is unlikely that children discovered by the above method would benefit by diet, diagnosing older children and adults becomes an important way of protecting subsequent children in a family. With adequate follow-up such knowledge can alert the family and family physician to the importance of having all future infants including cousins, nephews, nieces, tested.

A screening program using the new Guthrie test for newborn infants was recently started by the Virginia Department of Health; this is part of the nation-wide program sponsored by the Children's Bureau. Also, infants over six weeks of age are being routinely screened by PKU in well baby clinics (approximately 10% of the general population).

During the past six years all new admissions to Lynchburg Training School and Hospital have been routinely screened for phenylketonuria. Eight cases which were not previously diagnosed as PKU were discovered. The 12 PKU patients admitted represented approximately 1% of the total number of patients admitted during the period. The family physician and the family were advised of our findings but no intensive follow-up with these families and their kin was attempted. However, subsequent reports revealed several siblings who had phenylketonuria or were carriers.

Currently, there are 14 known phenylketonuric patients in Lynchburg Training School and Hospital which is below the estimated statistical incidence expected in the general population. It is assumed that there are additional cases in the institution, cases which were not correctly diagnosed prior to 1956.

Control methods are to include dietary management and family counseling. Dietary management has a two-fold purpose of preventing mental retardation in children in whom the presence of PKU is detected before brain damage begins and of stopping the progress of brain damage when possible in those in which the disease has not yet caused severe damage.

A prepared low phenylalanine food is now available on prescription only and requires control by the physician and careful application by the mother. It may be used as a sole or main source of nourishment. Additional food should be low in protein so that sufficient calories and a varied diet can be provided within the limits of proper phenylalanine intake. Supplied in a powder form, it is easily mixed with water or as a beverage for children.[6]

As part of this program, the special diet product can be provided without cost in cases where indicated and when requested.

Experience with diet management is still too new to provide conclusive evidence as to how long the low phenylalanine diet must be continued. Efforts are being made to determine whether after control for a few years patients may be able to tolerate a normal or near normal diet.[6]

It is generally accepted that after severe brain damage has occurred the diet is not beneficial. There is some evidence to indicate, however, that dietary treatment may be of value in controlling behavioral and neurologic symptoms in certain older children.

Possibly, on a pilot basis, a group of selected children who are older and severely disturbed may be added to the group who will receive the diet. The family will, of course, be informed that this is being done on a trial basis and that improvement is unlikely.

Evaluation of our findings and progress will be continuous; such information will be made available to those interested through reports, professional meetings, etc.

Although phenylketonuria is relatively rare, it is nevertheless tremendously important in terms of economic loss, human waste and meaning to families. Like other congenital illnesses and abnormalities, this condition creates problems which are different and individual for each family. If one discovered one phenylpyruvic in a life time and prevented mental deterioration in that one the added trouble would be more than amply repaid.[7]

It is hoped, too, that if this program proves to be widely applicable it can be extended to devise programs which will prevent mental retardation resulting from other inborn errors of metabolism.

Obviously, such an undertaking will require the wholehearted interest and cooperation of State and local health and welfare authorities and especially that of physicians. Letters with information about the plan will be sent to all practicing physicians in Virginia.

Dr. Benedict Nagler, who will direct the project, will serve without compensation. Other staff members are Miss Juanita Wood, a psychiatric social worker, who will serve as Assistant Director; Mrs. Glenda Desmond, R.N., Public Health Nurse; and Mrs. Bonnie Johnson, Secretary. Dr. Carolyn Chandler of the National Institute of Mental Health, Bethesda, Maryland, will serve as Project Officer.

Laboratory facilities will be established at the Lynchburg Training School and Hospital; testing procedures will include the filter-paper test and the serum phenylalanine determination test.

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Public Health . . . .

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

The Physician and the Public Health Nurse

Throughout the years the goal of public health has been the prevention of communicable diseases and the education of the public in good health measures. With the increase in the number of older people, many conditions or illnesses are classified as long term and require extended medical treatment and/or nursing care. As a result, the relationship between the private physician and public health personnel has become more significant. Also, there has been an increased awareness of the responsibility of official health departments in providing services for persons who have long term illnesses.

The medical profession in Virginia emphasizes keeping as many persons as possible in their homes who are in need of indefinite or lengthy medical care. It is the public health nurse who can be of great assistance to the private physician in carrying out this objective by providing nursing care and supervision for his patients in their homes.

An example of such service is in the case of the Rheumatic Fever patient who requires extensive drug therapy and bed rest. The public health nurse visits the home and plans with the family for the convalescent care of the patient. When bed care is recommended planning begins with the mother and the patient, if the patient is old enough and well enough to participate.

Since a separate room and bed are necessary the nurse makes arrangements for this with the parents. In addition, such matters as foot boards, proper body alignment, and bed care are discussed. The small child on complete bed rest usually presents the greatest problem to the mother. However, even with older children the nurse can assist the mother by instructing her and the child in ways to keep the burden of bed care to a minimum.

In the case of drugs, the nurse can assist the family to obtain the drugs and supervise their administration. She teaches the importance of caring for the drug properly and how to administer it correctly and regularly. She also observes the patient's reactions, if any, and reports them to the physician.

Another important service rendered to the patient and physician by the public health nurse is to prepare the family and home for the return of the hospital-discharged patient. The public health nurse in this instance may teach simple nursing procedures to the family and acquaint them with available community resources and how to use them. She may also help with the physical arrangement of the home for better and safer care, and help obtain needed equipment for the care of the patient.

In the case of a tuberculous patient, isolation measures may have to be undertaken. The effectiveness of these measures in the home depends largely upon the environment, plus the cooperativeness of the patient and family. Although the instruction in such care must be highly individualized, the nurse begins with the areas of greatest danger and proceeds as slowly or as rapidly as is indicated. Instruction is given in such matters as the collection and disposal of sputum, the care of linen and clothing, care of the bed and equipment, sanitary precautions, bedside care, and protection for the patient and the family.

In rehabilitation cases, the nurse assists individuals with a disability to attain their highest levels of capabilities, both physical and mental. For example, the patient who

has had a stroke receives help in following the physician's recommendations regarding exercises and other activities.

One of the public health nurse's duties is the instruction of families she visits. For example, in working with the maternity patient she explains the making and use of articles needed during pregnancy and after the birth of the baby. Demonstrations such as bathing, feeding and preparing a formula for the new baby may be given. The nurse keeps the physician informed as to social and physical factors in the environment that may affect infant care.

For the patient and family with nutritional problems, the nurse gives guidance in the development of proper eating habits, food selection, and preparation. Also, she instructs regarding a special diet which may include the preparation and cooking of food, when such special diets are prescribed by the physician.

One of the public health nurse's chief concerns is teaching families the importance of early and regular medical supervision. She assists the physician as well as the patient when she suspects a condition for which the patient should have medical consultation and/or supervision, and encourages the patient to see his family physician. In such instances, she may also report to the physician the nature of her observations and any contributing or hampering environmental or social factors.

In addition, the public health nurse works with the physician in interpreting and in helping to implement the use of State Health Department resources available to his patients. These include diagnostic as well as curative aids.

In reality, the public health nurse is a community health resource. She is there to assist the physician in the medical supervision of his patients in the home in much the same manner as the hospital nurse works with him in the hospital. The nursing care given by the public health nurse is based upon the orders of the physician medically responsible for the care of the patient. She is able to provide nursing services as directed, including preventive care, curative care and health counselling. The degree to which these services are used effectively is determined largely by the individual physician.

Monthly Report of Bureau of Communicable Disease Control

	Sept. 1962	Sept. 1961	Jan.-Sept. 1962	Jan.-Sept. 1961
Brucellosis	2	2	12	16
Diphtheria	2	0	11	11
Hepatitis	72	96	984	1141
Measles	52	78	9266	11700
Meningococcal Infections	2	2	53	36
Aseptic Meningitis	10	19	39	55
Poliomyelitis	1	3	8	8
Rabies (In Animals)	12	9	115	170
Rocky Mt. Spotted Fever	11	7	44	47
Streptococcal Infections	325	435	9987	5007
Tularemia	1	6	13	16
Typhoid Fever	0	7	15	16

The Medical Society of Virginia . . . .

AMA Institute

When I attempt to describe the AMA Institute, held August 30-31 at the Drake Hotel, Chicago, I am reminded of the old fellow when asked about his comments concerning the County Fair, his reply was, "It's bigger and better every year", and that certainly applies to this Institute. I have had the privilege of attending it for about eight years and the attendance at the opening session this year was much larger and the attendance remained with the Institute during the entire session. Also, I believe that the information gained by those in attendance was far in excess in value of any previous Institute in the past.

The opening session could be very well correlated to the sport which is most paramount at this season of the year and that is Football because Leo Brown, Assistant to the Executive Vice President, did a magnificent job as Quartermaster, calling the "plays". The initial Kick-off was presented by our illustrious President of the AMA, George M. Fister, who discussed, "The Public Be Served", and the Play-Back was presented by the Executive Vice President, F. J. L. Blasingame, who discussed how the AMA Serves The Public. One of the highlights of the morning session was presented by Dr. G. K. Higgins of Calgary, Alberta, Canada, who discussed Medical Service For Hire—For Sale. The morning session concluded with a Panel Discussion moderated by Rev. Dr. Paul B. McCleave regarding Medicine and Religion in which the services of leaders of the various religious faiths, as well as the services rendered by the physician, were discussed and compared, with a great deal of benefit being derived from all remarks.

The Afternoon session resembled that of a Trial Court of the United States in which the Congressional Investigation of the Modern County Medical Society was presented with a Judge, Prosecutor, District Attorney, and Witnesses. Much valuable information was gained from all who testified.

One of the highlights of the program was the late afternoon session, Medicine and the Press, and was moderated by Jim Reed, Director, AMA Communications Division. In this portion of the program, Jerry Pettis, Public Relations Counsel of the AMA Physicians Advisory Committee on TV, Radio, and Motion Pictures, of Hollywood, gave some very interesting pointers concerning how doctors should listen to radio programs as well as view TV programs so that they would be in a better position to discuss the things that were said over the radio and shown on TV with their patients.

Dr. Kildare receives 12,000 letters a week and the cost of producing one Ben Casey program is $150,000. Jerry Pettis stressed the importance of these programs as a major advertising media of the Medical Profession, at no cost to the profession, and urged that doctors view Dr. Kildare and Ben Casey TV programs.

The valuable assistance that could be obtained from the greater use of the Auxiliary of the various medical societies was stressed and it was the opinion of those present that the services of the Auxiliary were not used to their greatest benefit. Greater cooperation was urged between the local medical societies and the auxiliary to those societies.

The evening session, of the first day, was concluded by a valuable presentation of V-Day and, in their opinion and mine, V-Day is the 6th of November, the day when every American should vote. They urged that the medical profession make every effort to see that as many people as possible vote on that day and it is only through their voices that the wishes of the public could be made known to those in Washington and with enough impact that the Representatives and Senators would carry out the wishes of the public.

The morning of the second day dealt with The County Medical Society and Community Health at which time there was discussion regarding the Cooperative Responsibility of the Medical Society Public Health Programs and the County Medical Society. Medical Preparedness for Community Disaster was presented by Dr. Francis J. Jackson, Pittsburgh Immunization Programs, with emphasis on Poliomyelitis, the S.O.B. (Sabin Oral Sunday) by the Cleveland, Ohio, Medical Society, and Tetanus by the Boiling Springs County in North Carolina.

The remainder of the morning dealt with such subjects as Medical Ethics and Licensure, the Physician Ownership of Pharmacies and Drug Companies, and how to deal with Chiropractors, Optometrists, and Osteopaths.

The final Field Goal of this terminal Football Classic was presented by Dr. Edward R. Annis, President-Elect of the American Medical Association. Maybe you who saw and heard Dr. Annis on TV, when he made his talks in Florida and his magnificent reply to President Kennedy in the empty Auditorium, following President Kennedy's Address to the Elderly, think you have seen a wonderful person but you can not imagine the power of this man's address until you have seen him in person and such was our privilege when he discussed, Influencing Representative Government.

It was a privilege to represent The Medical Society of Virginia at this Institute. Copies of most of the presentations, at this Institute, as well as a copy of the Film shown at the conclusion of Thursday's program, dealing with Dr. Annis at the Boy's Camp and his replies to remarks on Medicare made by Mr. Kennedy and his associates, and the position that the AMA is taking in regard to providing adequate medical care to those in the geriatric group who need medical care and are not financially able to obtain it for themselves, are available to local medical societies. Copies of the presentations at this Institute, as well as a copy of this Film (29 Minutes) for use on TV or among local groups, can be obtained by writing to Mr. Jim Reed, Director, AMA Communications Division, 535 North Dearborn Street, Chicago 10, Illinois.

John Wyatt Davis, Jr., M.D.,
Chairman
Public Relations Committee

Film Catalog Now Available.

The 1962 edition of the AMA Medical Health Film Library catalog is now available for distribution by the Medical Motion Pictures and Television Section of the Department of Scientific Assembly. This expanded catalog contains information about 173 films for professional audiences and 82 films to be used by physicians in addressing lay groups such as PTA, church organizations, service clubs, etc. A description of the content of each film, running time, service charges, and instructions for ordering are included in this catalog. The services of the AMA film library are available to physicians, medical societies, hospitals, medical schools and other medical groups. Copies may be obtained, without charge, by addressing your request to the American Medical Association, Medical Motion Pictures and Television Section, Department of Scientific Assembly, 535 North Dearborn Street, Chicago 10, Illinois.

Editorial....

Doctor Fletcher Johnston Wright, Jr.

SOMEWHERE in the midst of heavy fire during World War II, a letter was sent to his mother advising that he could not disclose his whereabouts, but that he had been recently to the place that hangs as a picture in the hall of her home. This was a picture of the Cathedral at Rheims! Dr. Fletcher Johnston Wright, Jr., served as a Captain, then Major in the Army of the United States from 1942 to 1945. He was connected with the 4th and 5th Auxiliary-Surgical Group E.T.O.



FLETCHER JOHNSTON WRIGHT, JR., M.D., *President*
The Medical Society of Virginia

The President of The Medical Society of Virginia began his notable career when the blessed event took place on October 19, 1910, in Fork Union, Virginia, the son of Dr. and Mrs. Fletcher Johnston Wright, Sr. Dr. Wright followed in the profession of his illustrious father, who was a man described, as: "of high character, general impulses and attractive personality and was greatly beloved by his fellow physicians. As a practitioner of medicine he was highly regarded by his colleagues and looked upon as one of the most competent men in his section." [1]

Dr. Wright received his Bachelor of Science Degree from the University of Richmond in 1930 and his Degree in Medicine from the University of Virginia in 1934. He married Martha Jeannette Andrews on June 29, 1935. They have two married children, Fletcher Johnston Wright, III, and Anne Wright Steele.

He interned at the University of Virginia 1934-35, and had his residency at the Memorial Hospital, Princeton, West Virginia. His private practice with emphasis on surgery was begun in 1937 in Petersburg, at which time he became a staff member of the Petersburg Hospital, now the Petersburg General Hospital.

Dr. Wright is an esteemed and outstanding physician, having displayed the characteristic of leadership by the numerous offices he has held. To mention a few, he was Petersburg Medical Faculty President in 1946, Fourth District Medical Society President in 1949, Chairman of the Medical Staff of the Petersburg Hospital in 1952, member of the Council of The Medical Society of Virginia for a number of years and chairman of its executive committee for the past three years, Speaker of the House of Delegates (1960-1962), President of the Virginia Academy of General Practice (1959-1960), President of the Virginia Medical Service Association (Blue Shield 1960-1962). Dr. Wright is a member of The Board of the Virginia Council of Health and Medical Care. He is also a member of the Trudeau Society and the American Academy of General Practice and a fellow of the International Academy of Medicine.

There is a reflection of a sympathetic nature with understanding and warmth shielded with dignity and reserve in his personality. His kind manner has endeared him to many who have associated with him professionally and socially.

CONGRATULATIONS! DR. WRIGHT.

William Grossmann, M.D.

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Society Activities . . . .

Southwestern Virginia Medical Society.

The fall meeting of this Society was held in Roanoke, September 20th, with the president, Dr. Marcellus A. Johnson, III, presiding.

The following program was presented: Experiment with Fluothane Anesthesia in a Small Hospital by Dr. Fausto Obregon, Marion; Cancer of the Breast: Survival Rates by Dr. C. Frederick Johnson, Abingdon; Utilization of Community Hospital for Short Term Intensive Treatment of Selected Psychiatric Cases by Dr. Marshall D. Hogan, Jr., Bristol; Needle Biopsy as an Aid in the Diagnosis of Hepatic Disease by Drs. Richard M. Newton and Anthony V. Torre, Roanoke; and Depressive Reactions—Early Recognition and Management by Dr. John G. Novak, Lynchburg. The banquet speaker was Dr. Perry S. MacNeal of the University of Pennsylvania, his subject being Medical Ethics for the Doctor's Wife.

Dr. Fredric Delp, Roanoke, was elected as the new president with Dr. Thomas W. Green, Bristol, as vice-president, and Dr. Garrett Dalton, Radford, secretary-treasurer. The next meeting of the Society will be held in April in Abingdon.

Augusta County Medical Society.

New officers of this Society who assumed office on September 12th are: President, Dr. W. C. Smith, Waynesboro; vice-presidents. Drs. Randolph Shields, Staunton, Beverley Loesch, Waynesboro, and McKelden Smith, Staunton; secretary, Dr. C. W. Caulkins, Waynesboro; and treasurer, Dr. James A. Higgs, Staunton.

Hanover County Medical Society.

Dr. Robert Moseley, Ashland, is president of this Society, and Dr. Claude K. Kelly, Mechanicsville, secretary.

Southern Medical Association.

The 56th annual meeting of this Association to be held at the Hotel Fontainebleau in Miami Beach, November 12-15, will be the largest in six years. Not only is a record attendance of some 7,000 expected but the scientific sessions will cover a wider range of topics, in addition to expanded scientific closed-circuit programs, public telecasts and three symposia geared to the rapidly changing problems of modern medicine.

Dr. A. Clayton McCarty, Louisville, is president of the Association.

The Diabetes Association

Of the District of Columbia will hold a one-day symposium on The Current Aspects of Diabetes at the Washington Hospital Center on December 13th. The program will begin at 9:15 A.M. and the following will be presented: Neuropsychiatric Aspects of Juvenile Diabetes by Dr. Reginald S. Lourie, Washington; Diabetic Nephropathy by Dr. Max Ellenberg, New York City; The Course of Juvenile Diabetes Treated with Unmeasured Direct by Dr. Harvey C. Knowles, Cincinnati; Diabetic Microangiopathy by Dr. J. M. B. Bloodworth, University of Wisconsin; Insulin Resistance and Insulin Antagonists by Dr. George W. Hamwi, Ohio State University; The Hypoclycemias by Dr. Jerome W. Conn, University of Michigan; Iatrogenic Diabetes by Dr. Rachmiel Levine, New York Medical College; and Oral Hypoglycemia Agents by Dr. Alexander W. Marble, Boston.

Further information may be obtained from Dr. Adolph Friedman, 1712 Eye Street, Northwest, Washington 6, D. C.

The American Rheumatism Association

Will hold its interim session in Richmond, December 7 and 8. The meeting will be held at the Hotel John Marshall and all physicians are welcome to attend.

Current Currents

H. R. 10: The President has signed H. R. 10 (Keogh Bill) into law. His action culminates a 12 year effort by those who have sought a tax deferred pension plan for the self-employed. The President took this action just six hours before the bill would have become law without his signature. A pocket veto seemed probable at one time, but Senator George A. Smathers (D., Fla.) had insisted that he would keep Congress in session to prevent this happening.

In announcing the signing of H. R. 10, White House Press Secretary Salinger said there would be no additional statement or explanation. Actually, the Treasury had opposed H. R. 10, but the overwhelming vote in the House and Senate made it appear certain that Congress would have overridden a Presidential veto.

The bill, as finally amended, authorizes the self-employed to deduct for tax purposes a part of the earnings set aside for retirement purposes. Up to 10% of earned income, or $2,500, can be devoted to the fund, but only 50% of this sum is deductible for tax purposes ($1,250 maximum). The bill requires the employer to include under the plan every full time employee with three or more years of service. A complete analysis of H. R. 10 will soon be available.

ECONOMIC SURVEY: A new survey of the economic condition of American families, made by the University of Michigan Survey Research Center, proves again the injustice of forcing higher payroll taxes on the nation's workers for the purpose of purchasing health care for the aged.

In commenting upon the Michigan survey, Dr. George M. Fister, President of the American Medical Association, stated "Analysis of the survey findings once again demonstrates, as other studies have, that the aged as a group are substantially better off on the average than younger Americans.

"It proves that the proposed program of nationalized health care for the elderly would be an intolerably unfair burden on wage earners by forcing them to pay health care bills for the aged, the vast majority of whom are well able to take care of themselves.

"The people who are advocating this program—and they include Administration officials, labor leaders and certain political candidates—have painted a dismal picture of the aged as a group living in virtual poverty and needing taxpayers' help in paying their medical bills. The truth is a great deal different. As shown by the findings of the University of Michigan survey, aged families, far from destitute and impoverished, actually own considerably more assets and owe fewer debts than younger families. . . . ."

Dr. Fister went on to say "the conclusion is irresistible" that the campaign for government controlled health care for the aged "is built on a monstrous fraud."

AMA ANNUAL MEETING: The 16th Clinical Meeting of the American Medical Association will be held in Los Angeles from November 25-28. The scene will be the Shrine Auditorium and one of the most complete and comprehensive scientific programs ever arranged will be presented.

QUOTE OF THE MONTH: Mr. J. Rhodes Mitchell, Vice President, The Chesapeake and Potomac Telephone Company of Virginia, had this to say in a recent address: ". . . Is self-reliance passé? I earnestly hope not! If it is, our way of life will not be available to our children, just as our fathers' way of life is not available to us. We can advance the American achievement only as long as we recognize that the foundation of its success is the strong self-reliant individual who is willing to give of himself for his community and his nation. This means spending the time necessary to understand that freedom is not to be taken for granted, but to be worked for every second of every hour of every day as long as each of us lives."

AMA FILM: The Program Chairman of your county medical society might be interested in obtaining the film highlights of the AMA Annual Meeting in Chicago. The film, designed with local medical societies in mind, offers an excellent opportunity for physicians to learn more about the variety of scientific presentations at the meeting. Host-Narrator of the 31 minute visit to Chicago's famed McCormack Place is Dr. Jack DeTar, Past-President of the American Academy of General Practice. The film is 16mm black and white, and can be obtained by writing the American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.

INFANT MORTALITY DECLINE: A bulletin from the Health Information Foundation of the University of Chicago states that "The impressive decline in infant mortality in the United States since earlier in this century has apparently resumed after an interruption during the latter half of the 1950's. After reaching a record low in 1956, the infant mortality rate rose somewhat in 1957 and again in 1958 when the Asian influenza epidemic raised the general level of mortality. But infant mortality dropped once more in 1959, and the provisional figures for 1960 and 1961 indicate a continuation of the downward trend, again establishing new record lows."

DID YOU KNOW? More than 300 tons of barbiturates and 500 tons of penicillin are used every year in the United States.

One in seven babies is born to a married teen-ager.

News . . . .

New Members.

The following doctors were received into membership of The Medical Society of Virginia during the month of September:

Karl Alexander Birk, M.D., Petersburg
John Arnold Board, M.D., Richmond
Henry Gasson Byron, M.D., Fairfax
George John Chohany, M.D., Williamsburg
Thomas Dewey Davis, Jr., M.D., Richmond
John Thomas Domann, M.D., Falls Church
Lyman McArthur Fisher, M.D., Richmond
Harold Jerome Goald, M.D., Falls Church
Paul Wiley Gordon, Jr., M.D., Fairfax
Reuben DeLoach Knopf, M.D., Roanoke
Hannah V. Leonhardt, M.D., Danville
Kurt O. Leonhardt, M.D., Danville
Ralph Taylor McCauley, M.D., Danville
William Wallace McDonough, M.D., Richmond
Warren Lodowick Moorman, Jr., M.D., Roanoke
James Franklin Oates, III, M.D., Richmond
Carlos Eduardo Odiaga, M.D., Annandale
Max Sanford Rittenbury, M.D., Richmond
Ignace James Robarge, M.D., Annandale
Clayton A. Robbins, M.D., Hopewell
Robert John Robertson, Jr., M.D., Virginia Beach
Thomas Nelson Rucker, M.D., Charlottesville
Kemper Davis Sarrett, Jr., M.D., Hampton
Anthony Peter Slewka, M.D., Culpeper
Frank Graber Turner, M.D., Danville
Thomas Atwood Wash, M.D., Newport News

Sheltering Arms Donation Day.

In order to meet a $407,000 annual operating budget, Sheltering Arms Hospital, Richmond, needs $170,000 in contributions. Since 1889, the Hospital has maintained its original purpose and ideals: to provide the best hospital care for those unable to pay for it, and to make its patients feel they are welcome guests. It costs over a thousand dollars a day to provide care for the ill in this 60-bed hospital that serves alike patients from all over the State.

Sheltering Arms is Virginia's only free general hospital; it is dependent on its friends to continue its operation. This year, join those who help Sheltering Arms help others by sending a donation to the hospital at 1008 East Clay Street, Richmond, Virginia.

Dr. Harry J. Warthen

Was a guest speaker at the tenth annual medical seminar of the Bluefield Sanitarium, Stevens Clinic and Clinch Valley Clinic, held in Bluefield, West Virginia, October 25th. His topic was "Why Did Stonewall Jackson Die?"

Dr. T. F. Kennan,

Raphine, has been named the most outstanding citizen of the Raphine-Steeles Tavern community for 1962. He was honored at a picnic outing with a citation which described him as "Honored citizen, gentleman, humanitarian and unselfish physician."

New Health Director.

Dr. James Brady Kinlaw has been appointed the new director of the Campbell-Charlotte-Lunenburg-Nottoway Health District. He was previously with the State Department of Health in Richmond. Dr. Kinlaw will live in Altavista.

Dr. Carroll Honored.

Dr. George Carroll, pathologist at Obici Memorial Hospital in Suffolk, has been named secretary of the American Society of Clinical Pathologists. He is also secretary-treasurer of the Virginia Society of Pathologists.

Dr. Arnold F. Strauss,

Norfolk, was honored on his 60th birthday in recognition of his 25 years as director of laboratories at DePaul Hospital. He was surprised by a dinner at the Norfolk Yacht and Country Club sponsored by the doctors who trained under him.

Dr. Susan J. Mellette

Has been named director of the division of cancer studies at the Medical College of Virginia. Since February 1961, she has been co-director of the division with Dr. William R. Nelson. Dr. Nelson resigned in July to resume private practice in Denver. Dr. Mellette was also promoted to assistant professor of medicine.

Dr. Lloyd B. Burk, Jr.,

Has been elected president of the Arlington County Unit of the American Cancer Society.

Home Nursing Care Program.

The Hanover and Caroline Health Departments are instituting a home nursing care program designed to assist in the care of patients who have a chronic disease. The care offered will be similar to that of the IVNA. Many patients, especially rural patients, often must be hospitalized for longer periods than would be necessary if home nursing services were available. Demonstration projects are being set up to see if it is practical to offer such services to rural populations. During the study period of two years, services will be free to anyone, regardless of financial status, who needs these services and is referred to the program. All patients must be referred by a physician, clinic or hospital. If referred by a clinic or hospital, a specific physician must be designated as the patient's physician.

Patients will be accepted into this program on the basis of available nursing time, benefits to be achieved, and ability of the nurses to administer the requested services. No full time nursing cases will be accepted and preference will be given to those who require a minimum of care for a maximum benefit.

Dr. Robert W. Moseley is Director of the Hanover County Health Department with offices at Ashland.

Doctor's Convalescent Opportunity.

Stone covered home, two story and full basement, on 400 foot beautiful river, exclusive section, healthy peaceful best climate. Three other small homes of two rooms. Artist's studio on private pond, fireplace, etc. Fine fishing. Eastern Shore of Virginia. $48,000 with other ground available. Contact Ralph Harris, owner, Nanock Gardens, Onancock, Virginia. (*Adv.*)

Office For Rent.

Modern far West End Building, Richmond. Excellent location, especially for surgeon, otolaryngologist or opthalmologist. Contact #40, care the Virginia Medical Monthly, 4205 Dover Road, Richmond 21, Virginia. (*Adv.*)

Approved Medical Residency Program.

Applicants may apply to Administrator, The Alexandria Hospital, Alexandria, Virginia. (*Adv.*)

Obituaries . . . .

Dr. Hugh Tucker Chelf,

Culpeper's oldest native-born citizen, and life-long resident, died September 10th. He was ninety-five years of age. Dr. Chelf attended the University of Virginia but received his medical degree from Jefferson Medical College in 1889. He had been a member of The Medical Society of Virginia for sixty-nine years.

A son and a daughter survive him.

Dr. Jesse Hughes Mabry,

Prominent physician of Newport News, died September 22nd after a long illness. He was eighty-three years of age and graduated from the Medical College of Virginia in 1901. Dr. Mabry began his practice in Newport News in 1903 and practiced there except for the time of his service during World War I. He was a past president of the Newport News Rotary Club. Dr. Mabry had been a member of The Medical Society of Virginia for sixty years.

His wife, a son and a daughter survive him.

Dr. Hugh Edgar Clark,

Winchester, died following a heart attack on September 24th. He was seventy-two years of age and received his medical degree from the University of Maryland in 1914. Dr. Clark located in Winchester in 1921 where he was engaged in general practice for two years. After postgraduate work, he relocated in Winchester in 1925 where he practiced surgery until his death. Dr. Clark was a past president of the staff of Winchester Memorial Hospital, had served as chief of surgery, and was a member of the Board of Directors. He had been a member of The Medical Society of Virginia since 1933.

His wife survives him.

Dr. Benjamin Herman Bailey,

Prominent physician of Yorktown, died September 22nd while attending a football game at William and Mary in Williamsburg. He was sixty-one years of age and graduated from the Medical College of Virginia in 1926. Dr. Bailey lived in Sandston, practicing in Henrico, Hanover and New Kent counties, for twenty-six years before moving to Yorktown nine years ago. He was active in the Masonic Lodge, the Sandston Civic Club and the Church. The athletic field at Highland Springs High School is named in his honor and he served for many years as physician for the football team there and also at the York High School. Dr. Bailey moved to Yorktown because a heart attack had made it necessary for him to undertake a "limited" practice, but it was noted he became one of the busiest men on the peninsula after his move. He was a past president of the Williamsburg-James City County Medical Society and had been a member of The Medical Society of Virginia since 1934.

His wife and three sons survive him.

Dr. Edward Barney Smith, II,

Well-known Waynesboro physician, died September 15th at the age of fifty-two. He was a native of Yorktown and received his medical degree from the University of Virginia in 1939. Dr. Smith practiced in Bridgewater and Enfield, North Carolina, before locating in Waynesboro in 1949. Since 1960 he had served as plant physician in the medical section of the DuPont Company. Dr. Smith had been a member of The Medical Society of Virginia since 1948.

His wife, a son and a daughter survive him.

Dr. Craig.

William Hartley Craig was born in Manchester, Virginia (now South Richmond) March 17, 1883. He received his preliminary education in the Public

Schools of Richmond and his medical education at the Medical College of Virginia graduating in the Class of 1906. The next year he spent as an intern in the old Memorial Hospital in Richmond. He did post graduate work in Philadelphia Polyclinic in Philadelphia in 1907. He then settled in Manchester where he did General Practice until 1958 at which time he retired because of failing health.

He was married January 16, 1917 to Della Leone Morris and leaves one daughter, Miss Jane Craig. In 1918-1919 he served in the U.S. Army as 1st Lieutenant in the Medical Corps.

He was an Elder of Porter Street Presbyterian Church, member of Manchester Lodge No. 14 AF & M, the American Medical Association, The Medical Society of Virginia, Manchester Medical Society and in the latter days of his active life was physician to the Reynolds Metals Company.

Since God in His infinite wisdom has removed Dr. Craig from our society, Be it

Resolved that the City has lost a very valuable citizen and popular physician; also be it

Resolved that the Richmond Academy of Medicine express their deepest sympathy to the family of the deceased; and finally be it

Resolved that a copy of these Resolutions be spread on the minutes of this Academy and copies sent to the family, The Medical Society of Virginia and The Manchester Medical Society.

E. C. Eggleston, *Chairman*
Turner Shelton
Philip Jones

Dr. Trow.

BE IT RESOLVED:

Whereas, we the members of the Fauquier Hospital Medical Staff have met to embody our sense of loss in the death of Dr. Walter Gordon Trow on June 13, 1962.

Whereas, Dr. Trow served well his community for many years in the practice of medicine, rendering his talents with respect, wisdom and devotion toward those who were under his care.

Whereas, Dr. Trow through his service in the First World War and through his vast army of friends, some of whom have passed on, has held the admiration and loyalty given only to one of his productive stature.

Now Therefore, we do hereby order that these resolutions be placed in the minutes of the Medical Staff, a copy be sent to The Medical Society of Virginia, and a copy be sent to his family in token of the sorrow and loss which have fallen upon them.



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NOTE: Lomotil is an exempt narcotic preparation.

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1. Demeulenaere, L.: Action du R 1132 sur le transit gastrointestinol, Acta Gastroent. Belg. 21:674-680 (Sept.-Oct.) 1958.
2. Kosich, A. M.: Treatment of Diarrhea in Irritable Colon, Including Preliminary Observations with a New Antidiarrheal Agent, Diphenoxylate Hydrochloride (Lomotil), Amer. J. Gastroent. 35:46-49 (Jan.) 1961.
3. Weingarten, B.: Weiss, J., and Simon, M.: A Clinical Evaluation of a New Antidiarrheal Agent, Amer. J. Gastroent. 35:628-633 (June) 1961.

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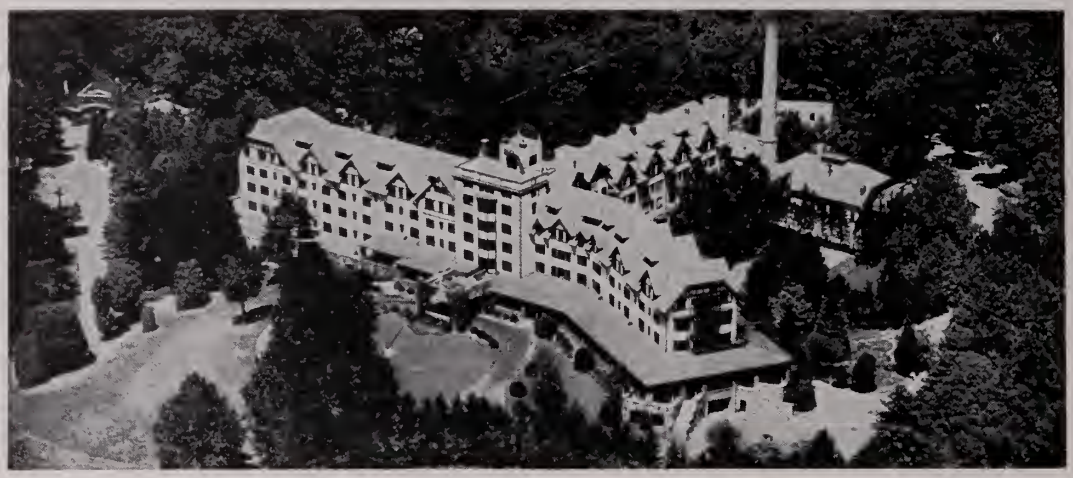
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*Schwartz, I. R.:
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1. Groskloss, H.H., Clancy, C.L., Healey, E.F., McCann, W.J., Maloney, F.D., Loritz, A.F.: Clinical Medicine (Sept.) 1955.
Study involving 287 patients. 261 patients experienced excellent to good results with Bonadoxin for relief of nausea and vomiting of pregnancy. No side effects reported.[1]

2. Albertson, H.A., Trout, Jr., H.H., Daily, F.W.: The American Journal of Surgery (Sept.) 1956.
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3. Goldsmith, J.W.: Minn. Med. (Feb.) 1957.
Study involving 620 patients, 537 patients experienced moderate to complete improvement of nausea and vomiting of pregnancy with Bonadoxin. Toxicity and intolerance to the medication in the dosage employed in these studies was zero.[3]

4. Codling, J.W.; Lowden, R.J.: Northwest Med. (March) 1958.
Study involving 76 pregnant patients with nausea and vomiting. The results indicated an overall response in 70 of 76 patients treated. No side reactions were observed in this clinical study.[4]

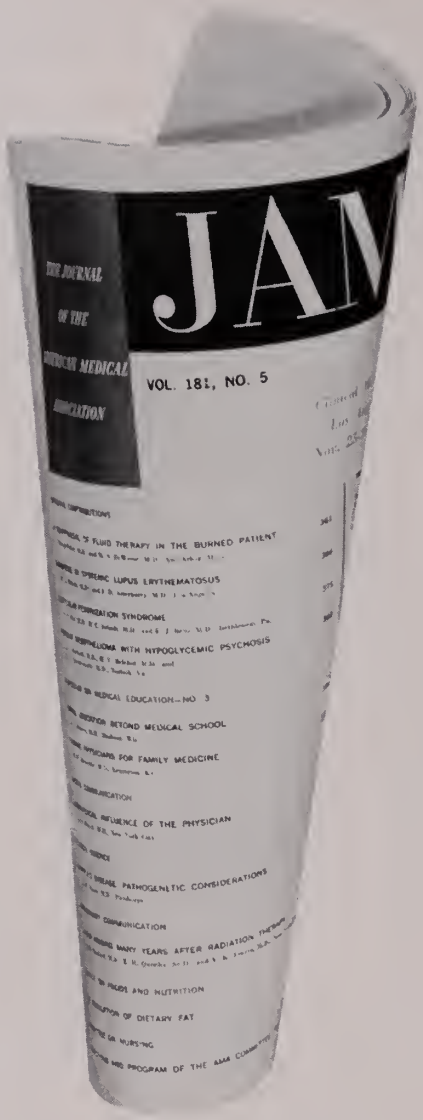
5. Bentley, M.D.: Journal of the Mich. State Med. Soc. (Sept.) 1959.
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6. Bethea, R.C.: International Record of Med. (May) 1960.
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7. Sklaroff, D.M.; Karayannis, N.: Current Therapeutic Research (June) 1962.
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Homatropine Methylbromide	1.5 mg.
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Phenylephrine Hydrochloride	10 mg.
Ammonium Chloride	60 mg.
Sodium Citrate	85 mg.

Average adult dose: One teaspoonful after meals and at bedtime. May be habit-forming. On oral prescription where state laws permit. U.S. Pat. 2,630,400.

Literature on request

Endo

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DELENAR loosens the rheumatic grip on muscles and joints, starts them functioning again—first by a direct relaxant action on skeletal muscle, again by its specific analgesic effects. And, while immediate symptomatic relief restores motion, underlying inflammation is reduced with the low-dosage corticosteroid.

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Aluminum Aspirin	375 mg.	Fast analgesic relief of motion-stopping pain
Dexamethasone*	0.15 mg.	Low-dosage anti-inflammatory steroid

For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, N. J. **Bibliography: 1.** Ernst, E. M.: Pennsylvania M.J. 63:708 (May) 1960. **2.** Settel, E.: Clin. Med. 7:1835 (Sept.) 1960.

*DERONIL® brand of dexamethasone H-415

loosens the rheumatic grip on muscles and joints

brand of antirheumatic preparation

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Theophylline	45 mg.
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Alcohol	19%

Adult Dose: 2 tablespoons 3 or 4 times daily.

How Supplied: Isuprel Compound Elixir is supplied in bottles of 16 fl. oz.

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New York 18, N.Y.

ISUPREL AND LUMINAL, TRADEMARKS REG. U. S. PAT. OFF.



Put your low-back patient back on the payroll

Soma relieves stiffness —stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, *fast!*

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*Each tablet contains phenylephrine HCl 10 mg., phenylpropanolamine HCl 40 mg., phenyltoloxamine citrate 15 mg., chlorpheniramine maleate 5 mg.—half in the outer layer, half in the sustained-action core. Each teaspoonful (5 cc.) of Naldecon Syrup contains the equivalent of one-half tablet.

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long-acting nasal decongestant/antihistamine

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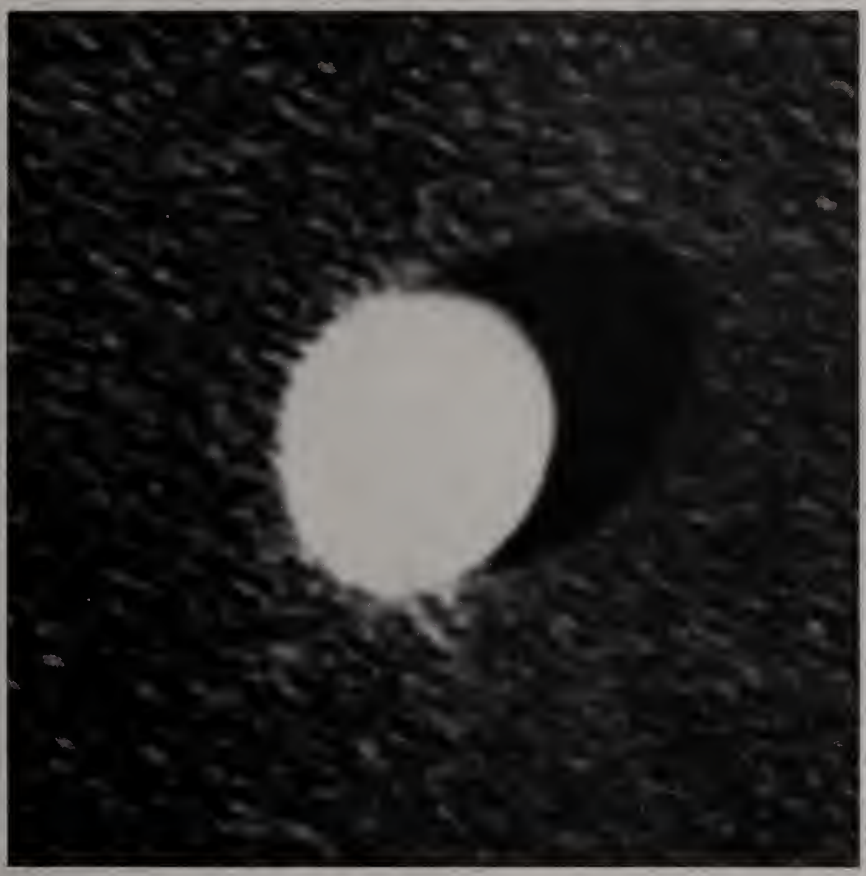
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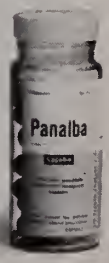
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NICOZOL therapy can help you brighten the outlook of your aging patients who tend towards (1) untidiness, (2) irritability, (3) incompatibility, (4) lack of interest, and (5) loss of memory or alertness.

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Supplied: NICOZOL tablets (and capsules) in bottles of 100 and 1000. NICOZOL Elixir in pints and gallons.

Average Dose: 1 to 2 tablets (or capsules) 3 times a day. 1 teaspoonful elixir 3 times a day.

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Nicotinic Acid.....50 mg.
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Pentylenetetrazol.....200 mg.
Nicotinic Acid.....100 mg.

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NICOZOL®



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A NEW COMPREHENSIVE RELIEF

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- **With minimal** drowsiness, CNS or pressor stimulation



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MADE POSSIBLE BY THE NEW TIMESULE RELEASE MECHANISM



Schematic drawing of Timesule cell showing dialysis through permeable coating.

Release with the Isoclor Timesule is at a relatively even, constant rate, independent of gastrointestinal motility, pH, or enzymatic activity. Each Timesule pellet is actually a micro dialysis cell, consisting of a drug core with coating of dialyzing membrane of precisely controlled permeability. Approximately 20% of active drugs are released within one hour and 80% in 8 hours. Peaks and valleys of over-release and under-release are minimized for constant, controlled relief with minimum side effects.

EACH ISOCLOR TIMESULE CONTAINS:

Chlorpheniramine maleate . . . . . 10 mg.
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In a special form providing prolonged therapeutic effect.

DOSE: Adults: One Timesule every 12 hours, or as directed.

WARNING: Use with caution in patients suffering from hypertension, cardiac disease, hyperthyroidism or diabetes. Patients susceptible to the soporific effect of chlorpheniramine should be warned against driving or operating machinery should drowsiness occur.

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asthma attack averted
. . . in minutes

patient protected
. . . for hours





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. . . works with nebulizer speed—provides four-hour protection

One NEPHENALIN tablet provides: *air in a hurry*—through sublingual isoproterenol HCl, 10 mg. *air for hours*—through theophylline, 2 gr.; ephedrine, ⅜ gr.; phenobarbital, ⅛ gr.

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PETERSBURG, VIRGINIA



When treatment for

IMPOTENCE

is indicated

ANDROID[T.M.] tablets

ANDROGEN-THYROID-COMBINATION

in two convenient dosage forms

ANDROID	ANDROID-H.P. (High Potency)
Each yellow tablet contains:	Each orange tablet contains:
Methyl Testosterone ....2.5 mg.	Methyl Testosterone .....5 mg.
Thyroid Ext. (1/6 gr.) ....10 mg.	Thyroid Ext. (1/2 gr.) ....30 mg.
Glutamic Acid .....50 mg.	Glutamic Acid .....50 mg.
Thiamine HCl ..... .10 mg.	Thiamine HCl .....10 mg.

INDICATIONS: Im otence in male.

AVERAGE DOSE: One tablet three times daily.

AVAILABLE: Bottles of 100 and 500 at your pharmacy.

CAUTION: Not to be used when testosterone is contra-indicated. Federal law prohibits dispensing without prescription.

1. *Methyl-Testerone-Thyroid in Treating Impotence*, A. S. Titeff, *General Practice, Vol. 25, No.2, February 1962, pp. 6-8.*

2. *Thyroid-Androgen Relations*, L. Hellman, et al., *The Jrl. of Clin. Endocrinology and Metabolism, August 1959.*

Write for samples and literature...

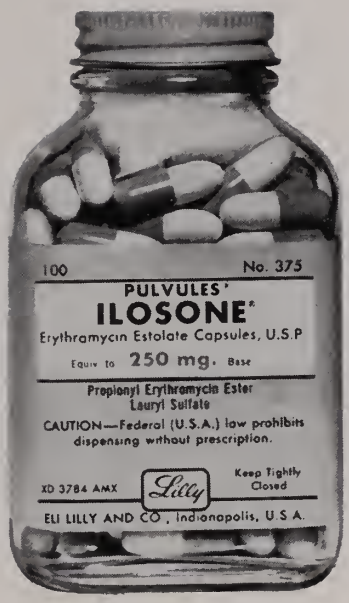
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sign of infection?

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Ilosone® is better absorbed—It provides high, long-lasting levels of antibacterial activity—two to four times those of other erythromycin preparations—even on a full stomach. **Ilosone is bactericidal**—It provides bactericidal action against streptococci, pneumococci, and some strains of staphylococci. **Ilosone activity is concentrated**—It exerts its greatest activity against the gram-positive organisms—the offending pathogens in most common bacterial infections of the respiratory tract and soft tissues.

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Ilosone works to speed recovery



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Tuesday, January 15, 1963
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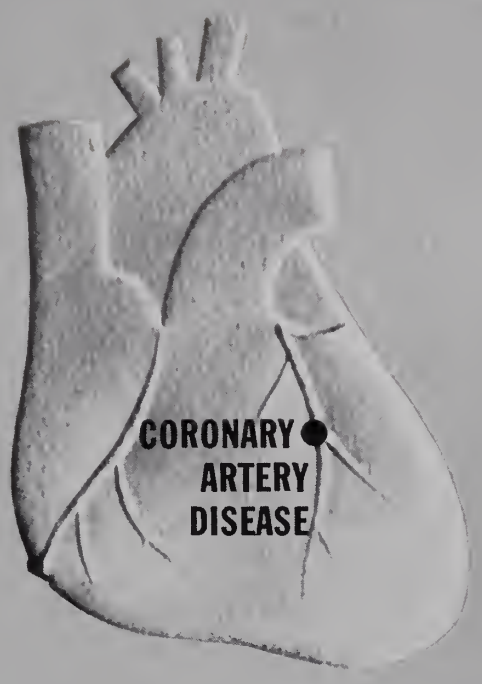
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Diseases of the cardiovascular-renal system account for about three-fourths of deaths among diabetic patients, with heart disease responsible for approximately one-half the total,[2,3] and coronary atherosclerosis the major cause of cardiac lesions.[1] While some feel that diabetics are predisposed, perhaps by heredity, to early onset of vascular disease, considered opinion is that vascular degeneration can be delayed or modified with "...careful and consistent control of diabetes from the time of diagnosis...."[4]

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for quantitative estimation

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urine sugar

- continued, close control
- graphic *Analysis Record* encourages co-operation...reveals degree of control at a glance...helps patient maintain control

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new, improved

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References: (1) Root, H. F., and Bradley, R. F., in Joslin, E. P.; Root, H. F.; White, P., and Marble, A.: The Treatment of Diabetes Mellitus, ed. 10, Philadelphia, Lea & Febiger, 1959, pp. 411, 437. (2) Joslin, E. P.; Root, H. F.; White, P., and Marble, A.: *ibid.*, pp. 188-189. (3) Marks, H. H., *et al.:* Diabetes 9:500, 1960. (4) Marble, A., in Summary of Conference on Diabetic Retinopathy, Survey Ophth. (Part 2) 6:611-612, 1961.

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DECEMBER, 1962

when urinary tract infections present a therapeutic challenge...

CHLOROMYCETIN®

(chloramphenicol, Parke-Davis)

Often recurrent... often resistant to treatment, urinary tract infections are among the most frequent and troublesome types of infections seen in clinical practice.[1,2] In such infections, successful therapy is usually dependent on identification and susceptibility testing of invading organisms, administration of appropriate antibacterial agents, and correction of obstruction or other underlying pathology.

Of these agents, one author reports: "Chloramphenicol still has the widest and most effective activity range against infections of the urinary tract. It is particularly useful against the coliform group, certain Proteus species, the micrococci and the enterococci."[1] CHLOROMYCETIN is of particular value in the management of urinary tract infections caused by *Escherichia coli* and *Aerobacter aerogenes*.[3] In addition to these clinical findings, the wide antibacterial range of CHLOROMYCETIN continues to be confirmed by recent *in vitro* studies.[4-6]

CHLOROMYCETIN (chloramphenicol, Parke-Davis) is available in various forms, including Kapseals® of 250 mg., in bottles of 16 and 100. See package insert for details of administration and dosage.

Warning: Serious and even fatal blood dyscrasias (aplastic anemia, hypoplastic anemia, thrombocytopenia, granulocytopenia) are known to occur after the administration of chloramphenicol. Blood dyscrasias have occurred after both short-term and prolonged therapy with this drug. Bearing in mind the possibility that such reactions may occur, chloramphenicol should be used only for serious infections caused by organisms which are susceptible to its antibacterial effects. Chloramphenicol should not be used when other less potentially dangerous agents will be effective, or in the treatment of trivial infections, such as colds, influenza, or viral infections of the throat, or as a prophylactic agent. *Precautions:* It is essential that adequate blood studies be made during treatment with the drug. While blood studies may detect early peripheral blood changes, such as leukopenia or granulocytopenia, before they become irreversible, such studies cannot be relied upon to detect bone marrow depression prior to development of aplastic anemia.

References: (1) Malone, F. J., Jr.: *Mil. Med.* **125**:836, 1960. (2) Martin, W. J.; Nichols, D. R., & Cook, E. N.: *Proc. Staff Meet. Mayo Clin.* **34**:187, 1959. (3) Ullman, A.: *Delaware M. J.* **32**:97, 1960. (4) Petersdorf, R. G.; Hook, E. W.; Curtin, J. A., & Grossberg, S. E.: *Bull. Johns Hopkins Hosp.* **108**:48, 1961. (5) Jolliff, C. R.; Engelhard, W. E.; Ohlsen, J. R.; Heidrick, P. J., & Cain, J. A.: *Antibiotics & Chemother.* **10**: 694, 1960. (6) Lind, H. E.: *Am. J. Proctol.* **11**:392, 1960.

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PARKE, DAVIS & COMPANY, Detroit 32, Michigan



VIRGINIA MEDICAL MONTHLY

(Founded by Landon B. Edwards. M. D.. April 1874)

PUBLISHED MONTHLY BY THE MEDICAL SOCIETY OF VIRGINIA

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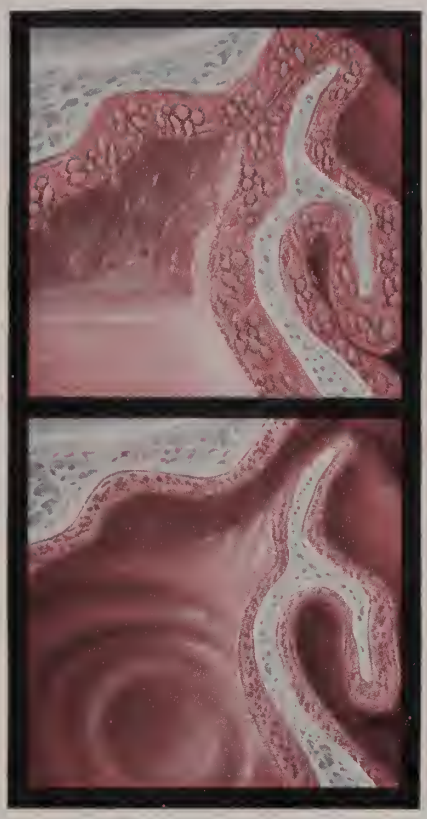
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1. Grant, L. E.: Coryza and nasal sinus infections, **Clin. Med. & Surg.** 42:121, March, 1935. 2. Putney, F. J.: Sinus infection, in Conn, H. F. (Ed.): Current Therapy 1952, Philadelphia, W. B. Saunders Company, 1952, p. 110. 3. Simonton, K. M.: Current treatment of sinusitis, **Journal-Lancet** 79:535, Dec., 1959.

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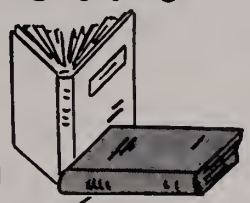
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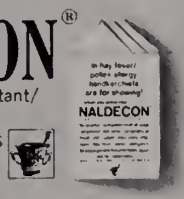
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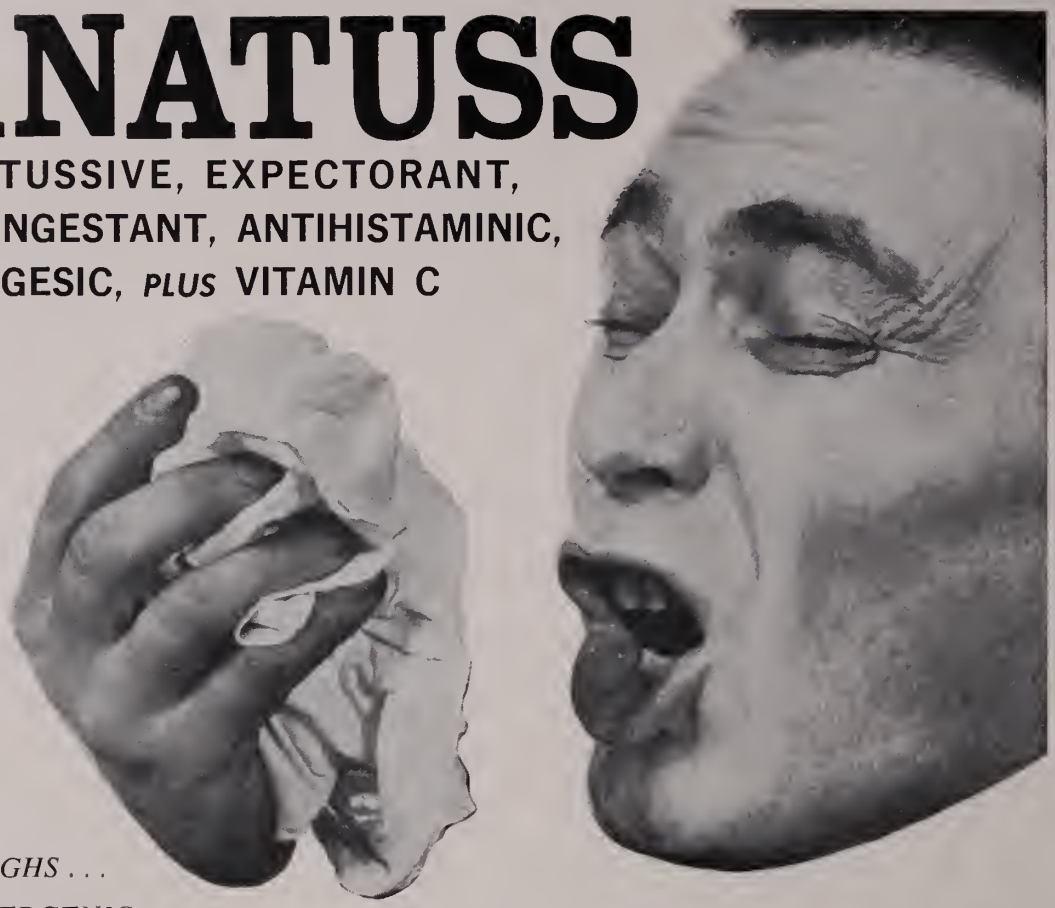
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At last — here is a tablet containing previously incompatible drugs which could not be administered in a single dosage form. ANATUSS is valuable in treating irritating coughs associated with allergic bronchitis or rhinitis; coughs and allergenic conditions associated with the common cold; chronic non-specific bronchitis; acute pharyngitis with cough; chronic pulmonary disease; post influenzal cough.

Each Tablet Contains:

IN OUTER COATING

Glyceryl Guaiacolate ..... 50 mg. N-Acetyl-P-Aminophenol ..... 300 mg.

IN INNER CORE

Dextromethorphan Hydrobromide .... 10 mg. Phenylephrine Hydrochloride .... 5 mg.
Phenylpropanolamine Hydrochloride 25 mg. Chlorpheniramine Maleate ..... 2 mg.
Ascorbic Acid ..... 100 mg.

Available in Bottles of 100 and 500 tablets. **ALSO** as **ANATUSS SYRUP,** combining the same valuable ingredients in a pleasantly flavored base.

SAMPLES AND LITERATURE ON REQUEST

Mayrand, Inc. PHARMACEUTICALS
GREENSBORO, NORTH CAROLINA



Put your low-back patient back on the payroll

Soma relieves stiffness –stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

> Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days.* (*J.A.M.A. Vol. 172, No. 18, April 30, 1960.*)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. **USUAL DOSAGE: 1 TABLET Q.I.D.**

The muscle relaxant with an independent pain-relieving action

SOMA®

(carisoprodol, Wallace)

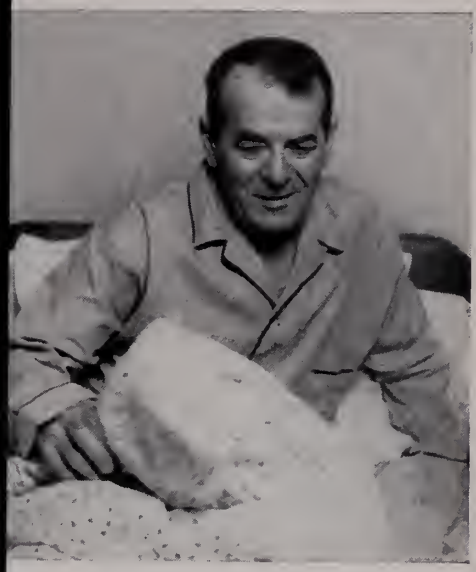
Wallace Laboratories, Cranbury, New Jersey



Thanks to 135 tiny "doses" throughout the

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night, the arthritic wakes up comfortable



Morning stiffness may be reduced or even eliminated as a result of therapy with the only steroid in long-acting form. And the slow, steady release of steroid makes it possible in some cases to reduce the frequency of administration and/or the total daily steroid dosage.

Medrol* Medules*

Each hard-filled capsule contains Medrol (methylprednisolone) 4 mg. Also available in 2 mg. soft elastic capsules.

Supplied in bottles of 30 and 100.

Upjohn

The Upjohn Company, Kalamazoo, Michigan

Reminder advertisement.
Please see package insert for detailed product information.



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Around the clock relief for

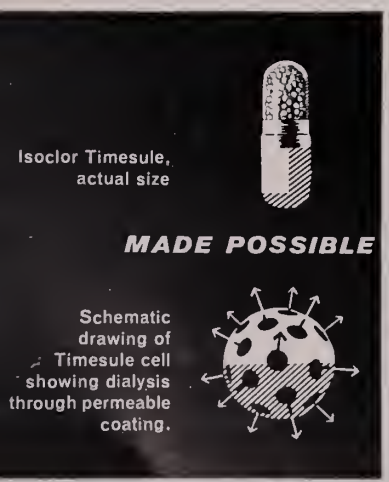
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A NEW COMPREHENSIVE RELIEF

- **Relief usually starts in minutes**—to open nasal passages, stop running nose and eyes, sneezing, wheezing, itching and post-nasal drip
- **Relief usually lasts up to 12 hours** with a single oral dose
- **Gives both** upper respiratory decongestion and bronchodilatation to relieve chest discomfort
- **With minimal** drowsiness, CNS or pressor stimulation



MADE POSSIBLE BY THE NEW TIMESULE RELEASE MECHANISM

Release with the Isoclor Timesule is at a relatively even, constant rate, independent of gastrointestinal motility, pH, or enzymatic activity. Each Timesule pellet is actually a micro dialysis cell, consisting of a drug core with coating of dialyzing membrane of precisely controlled permeability. Approximately 20% of active drugs are released within one hour and 80% in 8 hours. Peaks and valleys of over-release and under-release are minimized for constant, controlled relief with minimum side effects.

ALSO AVAILABLE: ISOCLOR TABLETS AND LIQUID.

EACH ISOCLOR TIMESULE CONTAINS:

Chlorpheniramine maleate ..... 10 mg.
d-Isoephedrine HCl ..... 65 mg.
In a special form providing prolonged therapeutic effect.

DOSE: Adults: One Timesule every 12 hours, or as directed.

WARNING: Use with caution in patients suffering from hypertension, cardiac disease, hyperthyroidism or diabetes. Patients susceptible to the soporific effect of chlorpheniramine should be warned against driving or operating machinery should drowsiness occur.

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For your elderly patients...

an effective GERIATRIC antiarthritic with distinctive Safety Factors

When arthritis strikes the elderly, it often poses a critical problem in the choice of an effective antiarthritic that will not aggravate other common geriatric conditions—such as osteoporosis, hypertension, anemia, hyperglycemia, peptic ulcer, renal, cardiac or hepatic damage, latent chronic infection, or emotional instability.

Pabalate-SF, the geriatric antiarthritic, is specially indicated for such patients.

As Ford and Blanchard have reported,[1] Pabalate-SF has "a pronounced antirheumatic effect in the majority of patients with degenerative joint diseases." It produces "a more uniformly sustained [salicylate blood] level for prolonged analgesia and therefore is superior to Aspirin in the treatment of chronic rheumatic disorders."

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1. Ford, R. A., and Blanchard, E. Jr.: Arthritis and Rheumatism 6:187, 1963.

Formula: In each enteric-coated tablet: potassium salicylate 0.3 Gm., potassium para-aminobenzoate 0.3 Gm., ascorbic acid 50.0 mg.

Also available:
PABALATE, when sodium salts are permissible
PABALATE HC, for conservative clinical therapy

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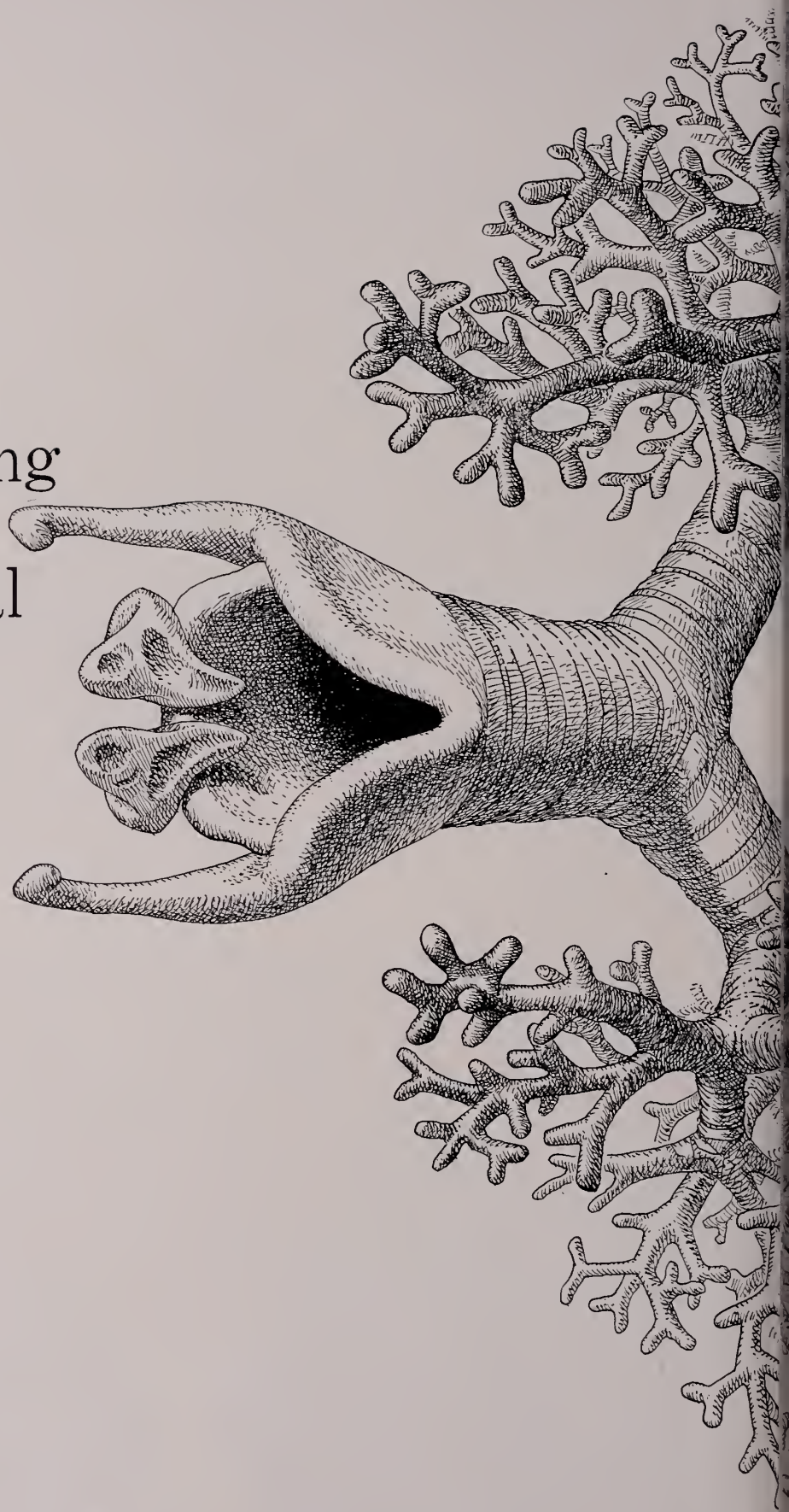
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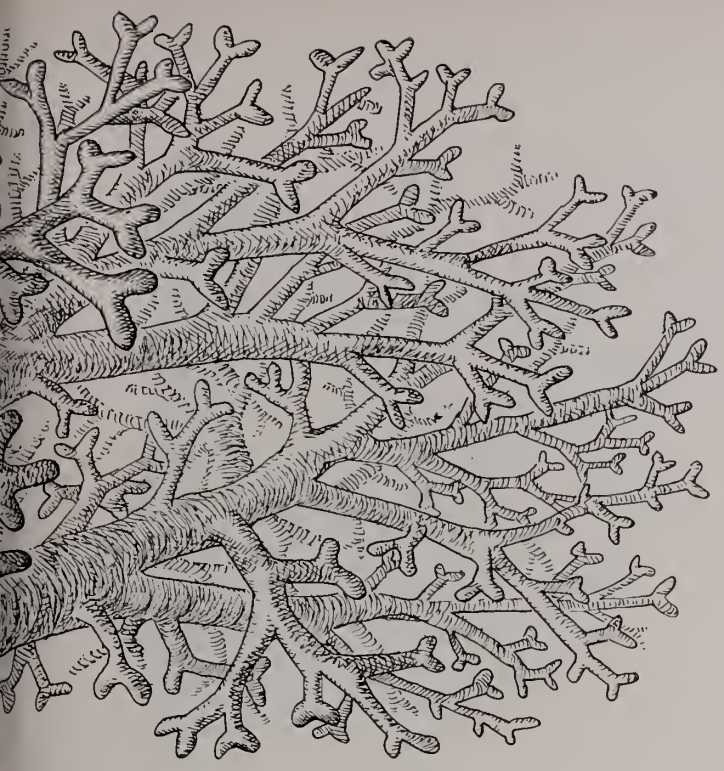
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gratifying
relief
in bronchial
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unsurpassed for total patient benefits

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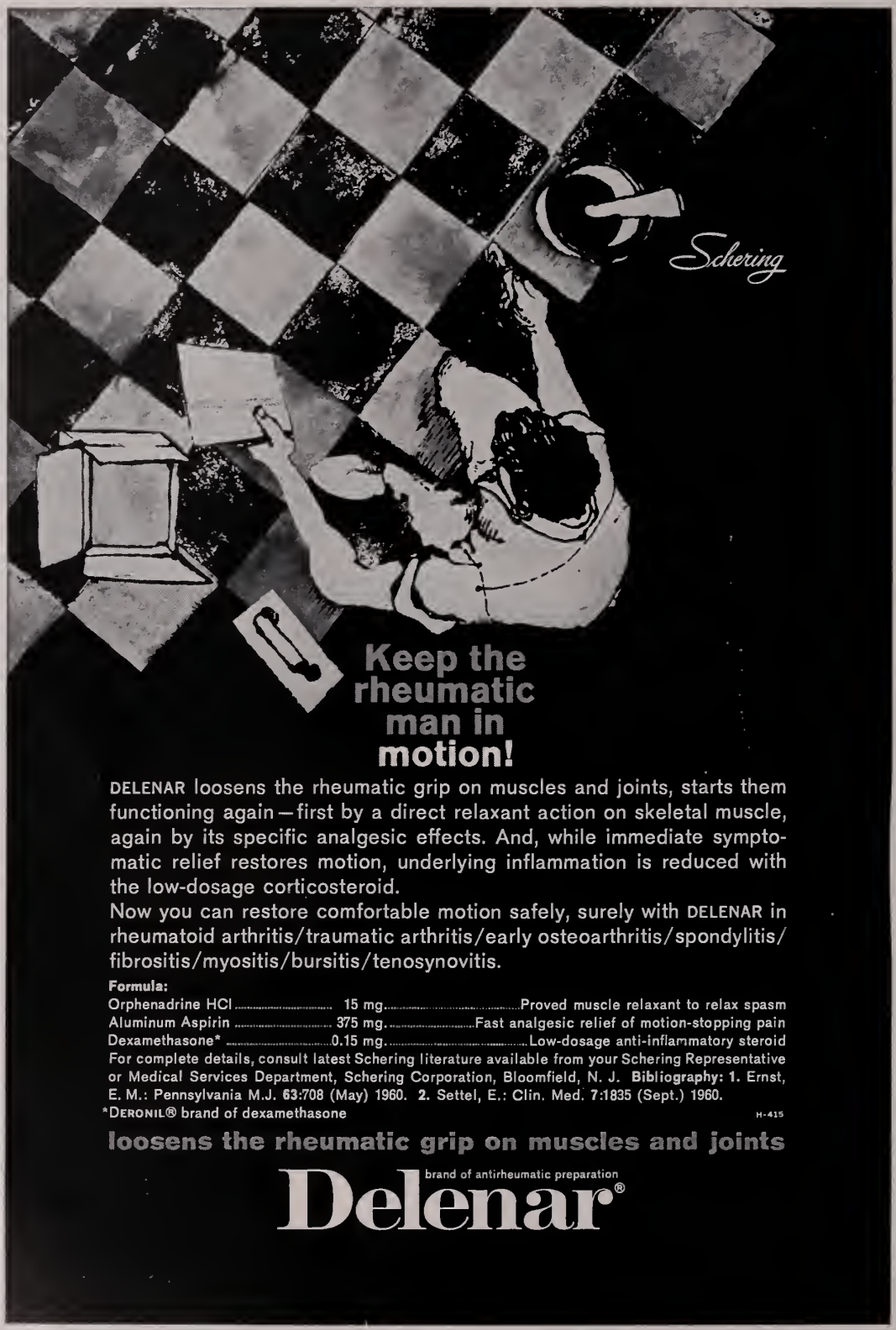


With ARISTOCORT, asthmatic patients obtain sustained relief of wheezing, dyspnea, and spasmodic coughing. It is of particular value in ameliorating severe attacks that may have serious sequelae. With ARISTOCORT, many patients who might otherwise be invalids are able to continue their customary livelihoods or maintain their regular household activities. Yet this symptomatic relief is not often accompanied by the hormonal collateral effects —sodium retention, edema, emotional disturbance, insomnia, voracious appetite— that so often have been a deterrent to steroid therapy.

SUPPLIED: Scored tablets (three strengths), syrup and parenteral. Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

Lederle

LEDERLE LABORATORIES
A Division of
American Cyanamid Company
Pearl River, New York



DELENAR loosens the rheumatic grip on muscles and joints, starts them functioning again—first by a direct relaxant action on skeletal muscle, again by its specific analgesic effects. And, while immediate symptomatic relief restores motion, underlying inflammation is reduced with the low-dosage corticosteroid.

Now you can restore comfortable motion safely, surely with DELENAR in rheumatoid arthritis/traumatic arthritis/early osteoarthritis/spondylitis/fibrositis/myositis/bursitis/tenosynovitis.

Formula:

Orphenadrine HCl	15 mg.	Proved muscle relaxant to relax spasm
Aluminum Aspirin	375 mg.	Fast analgesic relief of motion-stopping pain
Dexamethasone*	0.15 mg.	Low-dosage anti-inflammatory steroid

For complete details, consult latest Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Bloomfield, N. J. **Bibliography: 1.** Ernst, E. M.: Pennsylvania M.J. **63**:708 (May) 1960. **2.** Settel, E.: Clin. Med. **7**:1835 (Sept.) 1960.

*DERONIL® brand of dexamethasone

H-415

loosens the rheumatic grip on muscles and joints

brand of antirheumatic preparation

Delenar®

SPECIAL COUGH FORMULA
for Children

Pediacof®

SOOTHING DECONGESTANT AND EXPECTORANT

Each teaspoon (5 ml.) contains:

Codeine phosphate	5.0 mg.
Neo-Synephrine® hydrochloride (brand of phenylephrine hydrochloride)	2.5 mg.
Chlorpheniramine maleate	0.75 mg.
Potassium iodide	75.0 mg.



Bright red, pleasant tasting, raspberry flavored syrup

Dosage:

Children from 6 months to 1 year, 1/4 teaspoon; 1 to 3 years, 1/2 to 1 teaspoon; 3 to 6 years, 1 to 2 teaspoons; 6 to 12 years, 2 teaspoons. Every four to six hours as needed.

How Supplied:
Bottles of 16 fl. oz.

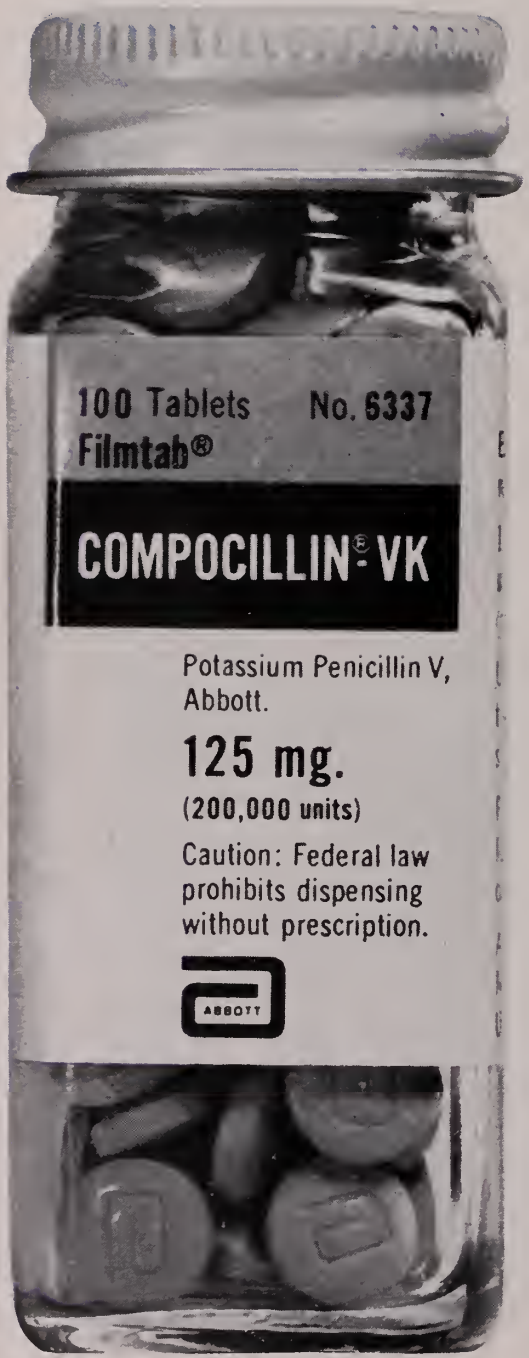
Available on prescription only.

Exempt Narcotic

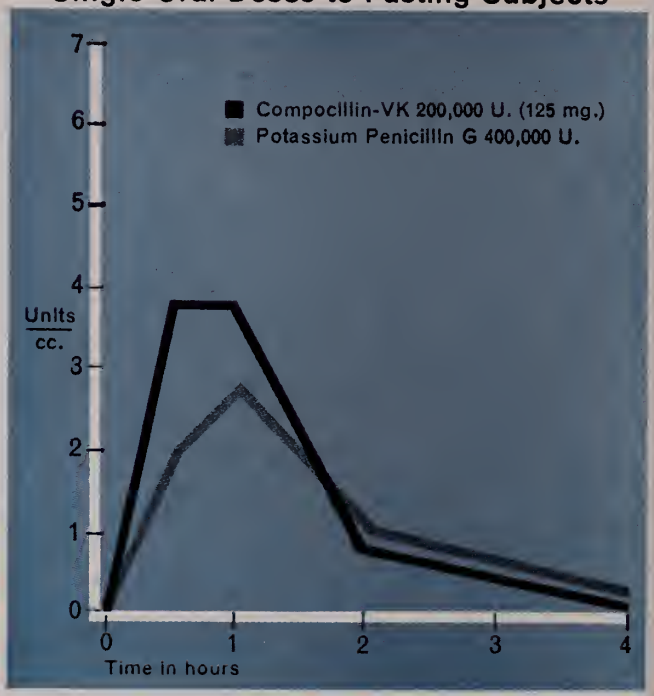
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LABORATORIES
New York 18, N Y

Here's a penicillin that gives you...

PATIENT ECONOMY WHEN YOU WANT IT



Single Oral Doses to Fasting Subjects*



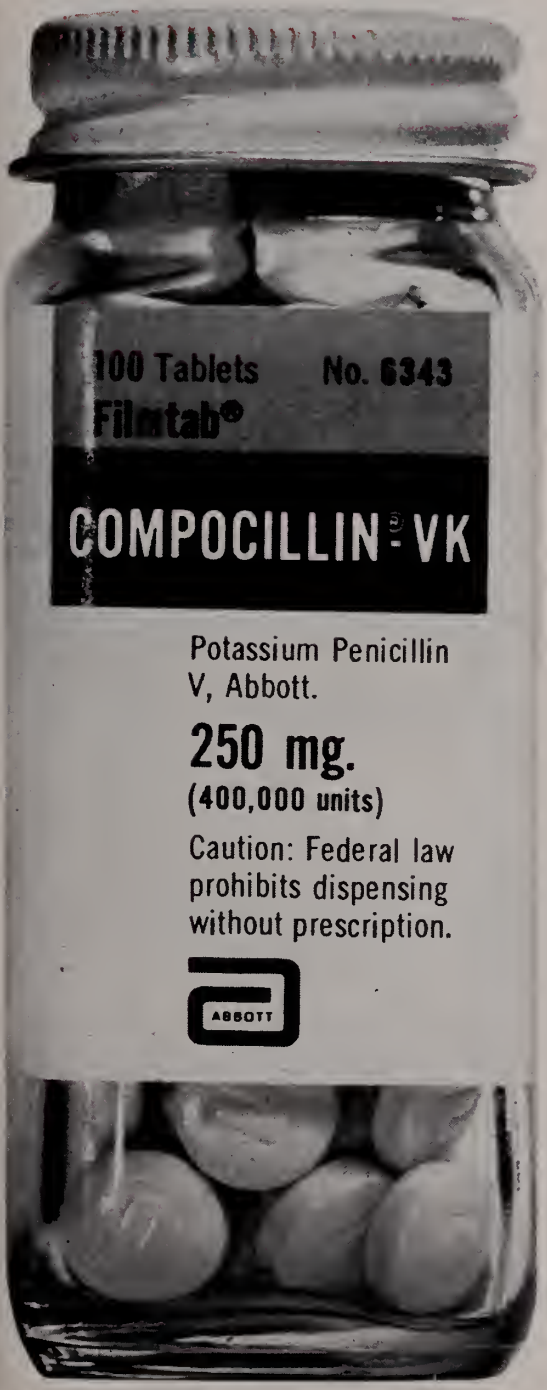
Consider milder bacterial infections

An example might be a respiratory infection. Here economy could be a definite factor in your thinking. In the chart above, you'll see that 200,000 units (125 mg.) of Compocillin VK produces blood levels at least equal to those obtained with 400,000 units of oral penicillin G potassium. This means that in less severe infections, Compocillin-VK may be given at *half* the dosage needed with oral penicillin G—with no sacrifice in blood levels. In these cases, the cost of Compocillin-VK therapy will be no more—and often will be less—than treatment with oral penicillin G.

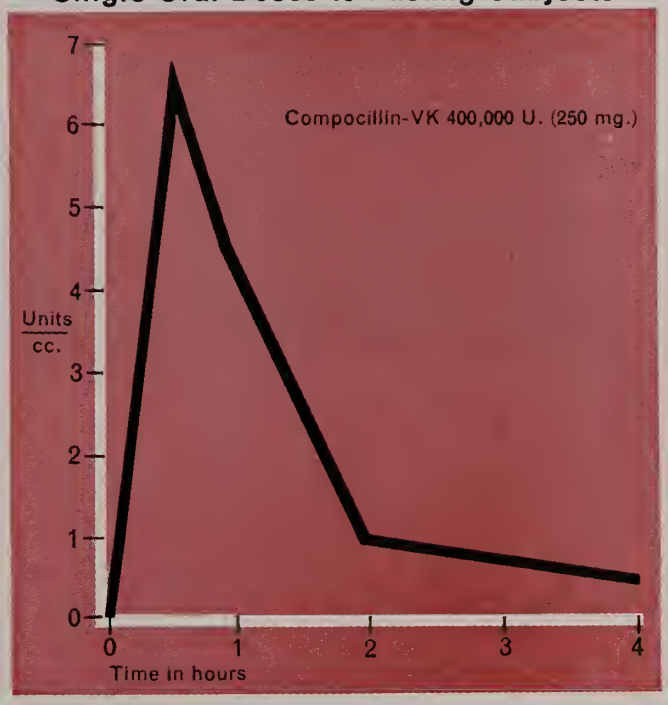
Compocillin-VK—the original potassium penicillin V • In Filmtab (125 and 250 mg.) and cherry-flavored Granules for Oral Suspension

Filmtab—Film-sealed tablets, Abbott: U.S. Pat. No. 2,881,085

PEAK EFFICIENCY WHEN YOU NEED IT



Single Oral Doses to Fasting Subjects*



Then, for severe infections...

. . . where your primary concern is high peak serum concentrations, you can prescribe Compocillin-VK at *full therapeutic dosage* and get the maximum antibacterial activity possible with an oral penicillin. The chart above shows the rapid peak blood levels obtained with 400,000 units (250 mg.) of Compocillin-VK. Actually, these peaks occur faster—and are higher—than those obtained with intramuscular penicillin G. Indeed, Compocillin-VK has been used in cases previously reserved for parenteral treatment. The safety advantage (oral vs. injectable) goes without saying.

*Chart data from two separate studies completed by the Microbiologic and Medical Departments of Abbott Laboratories.

ABBOTT LABORATORIES NORTH CHICAGO, ILLINOIS

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Write for descriptive literature
Clinical trial samples available

Each Bi-layer tablet contains:

Pentylenetetrazol . . .	100 mg.
Niacin	50 mg.
Thiamine Hydrochloride	1 mg.
Ascorbic Acid	20 mg.

Dose: One or two tablets, three times daily.

LEPTINOL is a safe central nervous stimulant. LEPTINOL is highly effective in confused states of elderly patients. Incipient psychosis of senility, with its warning symptoms of loss of interest, egocentricity, hypochondriasis, insecurity and intolerance can frequently be ameliorated.

Even in the presence of degenerative organic pathology, LEPTINOL can markedly alleviate many of the mentally disturbing symptoms.

LEPTINOL has a very high index of therapeutic safety, with no liability of addiction or tolerance, virtually no contra-indications.

Primary action is a positive stimulation of the medulla, more pronounced in depressed states than in normal individuals. Higher brain centers are also stimulated, and to a lesser degree, the reflex activity of the cord.

THE VALE CHEMICAL CO., INC.
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VALE
Pharmaceuticals since 1922

RELIEVE THE COLD SUPPRESS THE COUGH WITH NEW

'EMPRAZIL-C'

TABLETS

ANTITUSSIVE ▪ DECONGESTANT ▪ ANALGESIC

Each tablet contains:

Codeine Phosphate*	15 mg.
'Sudafed'® brand Pseudoephedrine Hydrochloride	20 mg.
'Perazil'® brand Chlorcyclizine Hydrochloride	15 mg.
Acetophenetidin	150 mg.
Aspirin (Acetylsalicylic Acid)	200 mg.
Caffeine	30 mg.

*Warning—may be habit forming.

Complete literature available on request.



Also available without codeine as

'EMPRAZIL'®

TABLETS

BURROUGHS WELLCOME & CO. (U.S.A.) INC., TUCKAHOE, N. Y.

Logical support for the atherosclerosis diet

A recent report* in the *JAMA* on atherosclerosis states, "...it appears logical to attempt to reduce high concentrations of cholesterol and other serum lipids as an experimental therapeutic procedure."

Since this report recognizes table spreads as an important source of dietary fat, it is in your professional interest to know about the fatty-acid composition of the margarines from Mrs. Filbert's.

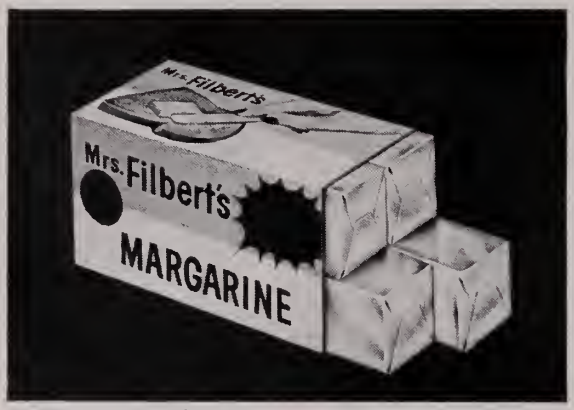
Each of Mrs. Filbert's Margarines is over 80% unsaturated and offers unique properties useful in the control of serum lipids by dietary means.

Moreover, when you recommend any one of Mrs. Filbert's Margarines, your patient is assured of unmatched taste and flavor satisfaction—an important consideration in promoting adherence to any therapeutic regimen.

*AMA Council on Foods and Nutrition: The Regulation of Dietary Fat, *JAMA* 181: 411-423 (August 4, 1962).



Mrs. Filbert's Corn Oil Margarine is made from 100% corn oil, over 50% of which retains its *liquid* characteristics. Because of its high linoleic content, its ratio of polyunsaturates to saturates exceeds 1.5 to 1 . . . and equals the highest level available today in *any* corn oil margarine. Of the total fatty-acid content, 28% is cis-cis linoleic acid. Thus, it can be most useful in a program for reducing serum cholesterol levels.



Mrs. Filbert's Margarine is a popular, conventional-type margarine with no premium price. It is made from the finest domestic vegetable oils, which are partially hydrogenated for texture, but remain over 80% unsaturated. It has a ratio of polyunsaturates to saturates in excess of 1 to 1. Of the total fatty-acid content, 7% is cis-cis linoleic acid.



Mrs. Filbert's Whipped Margarine contains the same number of calories per pound as ordinary margarine, but contains 30% *fewer calories per pat* because it is whipped. When spread normally, it provides satisfaction with a reduction in fat calories. And its ratio of polyunsaturates to saturates exceeds 1 to 1. Of the total fatty-acid content, 7% is cis-cis linoleic acid.

If you would like information about Mrs. Filbert's family of margarines—including detailed listings of their component characteristics—please write us.

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BETADINE—The only germicide whose color indicates a germ-free environment—provides lasting protection and is the most potent non-irritating topical antiseptic known.

for the first time...
a universal microbicidal agent that does not sensitize or retard healing

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Kills bacteria, viruses, fungi, yeasts and protozoa on contact. Non-injurious to skin, exposed tissue or mucous membranes.

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663 gentle doses of iron in a single capsule, once daily

ONE-IRON™

(capsules of timed-release ferrous fumarate)



the best-tolerated ferrous iron timed for release in the area of maximum absorption

A single capsule of ONE-IRON—taken once a day by your iron-deficient and even your iron-sensitive patients—sprinkles tiny particles of ferrous fumarate throughout the duodenum and jejunum over a four-hour period for virtually complete and trouble-free absorption.

Not only is maximum hemoglobin regeneration obtained, but the possibility of gastric discomfort, diarrhea or constipation from ionized iron is virtually eliminated.

Moreover, ferrous fumarate itself (the sole active ingredient of ONE-IRON) is better tolerated than ferrous sulfate, succinate or gluconate.[1-3]

Each timed-release ONE-IRON capsule provides ferrous fumarate, 325 mg. (5 grs.), equivalent to 107 mg. of elemental iron.

Dose—one capsule daily with breakfast.

Supplied—bottles of 100 and 1,000 clear and white capsules.

References: 1. Berenbaum, M.C. et al.: Blood 15:540, 1960. 2. Shapleigh, J.B. and Montgomery, A.: Am. Prac. & Digest Treat. 10:461, 1959. 3. Swan, H.T. and Jowett, G.H.: Brit. M.J. 2:782 (Oct. 24) 1959.

HART LABORATORIES
Division of A. J. Parker Co.
Winston-Salem, N. C.

BONADOXIN® for nausea and vomiting

Confirmed in over 7 years of clinical success: Bonadoxin stops morning sickness in 9 out of 10 patients[1]

Highly effective in other emetic conditions: postoperatively, following irradiation procedures, infant colic.

BONADOXIN®
Tablets · Drops · Intramuscular

time-tested for efficacy and safety

1. Groskloss, H.H., Clancy, C.L., Healey, E.F., McCann, W.J., Maloney, F.D., Loritz, A.F.: Clinical Medicine (Sept.) 1955.
Study involving 287 patients. 261 patients experienced excellent to good results with Bonadoxin for relief of nausea and vomiting of pregnancy. No side effects reported.[1]

2. Albertson, H.A., Trout, Jr., H.H., Daily, F.W.: The American Journal of Surgery (Sept.) 1956.
"As a result of this study, it is our belief that the routine prophylactic use of the combination of meclizine hydrochloride and pyridoxine is a safe and effective method for lessening the incidence of postoperative nausea and vomiting. We are employing this preparation as a routine pre-operative medication."[2]

3. Goldsmith, J.W.: Minn. Med. (Feb.) 1957.
Study involving 620 patients, 537 patients experienced moderate to complete improvement of nausea and vomiting of pregnancy with Bonadoxin. Toxicity and intolerance to the medication in the dosage employed in these studies was zero.[3]

4. Codling, J.W.; Lowden, R.J.: Northwest Med. (March) 1958.
Study involving 76 pregnant patients with nausea and vomiting. The results indicated an overall response in 70 of 76 patients treated. No side reactions were observed in this clinical study.[4]

5. Bentley, M.D.: Journal of the Mich. State Med. Soc. (Sept.) 1959.
[Bonadoxin] "was found clinically effective in the prevention of pre-operative and post-operative nausea and emesis in 157 patients who underwent ocular surgery, while control drugs alone could not completely eliminate the symptoms. Bonadoxin did not cause side reactions in the preoperative or postoperative phase of this study."[5]

6. Bethea, R.C.: International Record of Med. (May) 1960.
"Our investigation of this drug indicates that in 88 per cent of the cases satisfactory relief of the distressing symptoms of early pregnancy was obtained without undesirable side effects, including sedation."[6]

7. Sklaroff, D.M.; Karayannis, N.: Current Therapeutic Research (June) 1962.
"Based on these results, indicating 92 per cent effectiveness, meclizine-pyridoxine (Bonadoxin®) may be considered a valuable compound in the control of post-irradiation nausea and vomiting. The preparation proved to be safe and fast-acting in bringing therapeutic relief to carcinoma patients with radiation sickness."[7]



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Science for the World's Well-Being®

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Even a petite nurse can easily pick up and carry a Sanborn Visette® electrocardiograph wherever it's needed — in the office, on house calls, in the clinic or laboratory. Not much bigger than a doctor's bag, the Visette weighs only 18 pounds — with all accessories.

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relieve U. R. I. distress rapidly

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(Brand of Analgesic-Antihistaminic-Antipyretic Compound)

capsules

Each CORIFORTE Capsule contains:

CHLOR-TRIMETON® (brand of chlorpheniramine maleate)	4 mg.
salicylamide	0.19 Gm.
phenacetin	0.13 Gm.
caffeine	30 mg.
methamphetamine hydrochloride	1.25 mg.
ascorbic acid	50 mg.

available on prescription only



the case of the missing ampoule

People aren't perfect—neither are machines. Both can slip up occasionally. Take an ampoule in a paper carton for example. How can we be absolutely sure that the ampoule is really inside? ■ Here's how: A machine folds the carton, inserts the ampoule, seals the carton, and then places it on the finishing line. Further down the line, the detective waits—a jet of air sweeping across the finishing line just strong enough to blow an empty carton off the belt. Properly filled cartons proceed for further inspection and packaging. ■ Perhaps a small point, but it is another in a long series of control measures designed to deliver quality pharmaceuticals every time.

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Lilly

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The Virginia
MEDICAL MONTHLY

December, 1962
Vol. 89, No. 12
Whole No. 1327

Guest Editorial....

History of Medicine

THERE IS A FRINGE BENEFIT which every medical school surely owes its students: the cultural advantages of a broadly based instruction in the history of medicine. A number of schools already fit into their busy curricula lecture courses which give a sort of medical Genesis showing what genius begat what great idea and when, or give a sombre appraisal of the slow advance of medicine through the millennia before the very recent breath-taking medical bull market. From all this material a gifted teacher should be able to create sparks of interest in the dead past which is not really dead but an encyclopedia of lessons for the present and the future.

But the history of medicine is really a broader field even than that. It is a sort of conjunctive humanity, if you please, a humanity which is concerned with a great percentage of human knowledge. Things medical have often been pivotal in general history. The state of health has always been a limiting factor to both the individual and the nation. What if Prince Henry had not died of typhoid and left Charles heir to the English throne? What if George Washington had succumbed to his youthful smallpox as did so many of his contemporaries? How much longer would feudalism have lasted in England if there had been no bubonic plague? Would Lee's victory at Chancellorsville have been definitive if he had had available the five thousand soldiers sick with vaccinia? Historical and sociological questions of this sort could go on for pages.

Medicine has always been interdependent to a degree with the arts. The practice of medicine itself has been an art since the day of the priest-physician. It is only with effort that doctors become scientists and really advance the art. Evidences of the sympathy between medicine and the other arts are legion. Many of the great sculptors and painters have known, appreciated, and used anatomy. Pathology has fascinated them.

Such writers as Dickens, Moliere, and Hugo have often utilized the pathos and interest of medicine. Much of *Moby Dick* was fashioned from reports by John Hunter of his dissection of a whale. The sympathy with literature is indeed so close that scores of physicians, from Rabelais to Cronin, have turned to letters and exploited their clinical knowledge without reserve.

The history of medicine, then, is more than just a chronicle of a discipline. It is the story of life itself as illustrated in the art, literature, sociology, history, and science of the past. An acquaintance with these ramifications should enable a young doctor to be more aware of the breadth of his calling, to be a truly cultured man, and to be an influence for culture in his community because in his free moments he will take an active interest in all things of concern to human beings. Such should be the broadening duty of a department of the history of medicine to its students: the creation of a life-long, absorbing avocation.

Gordon W. Jones, M.D.

2301 Fall Hill Avenue
Fredericksburg, Virginia

Legislation Against Side Effects?

The unexpected appearance of side effects in drug therapy has been and will be due not to inadequacy of laws but to the inadequacy of scientific knowledge. Protection against side effects cannot be legislated. There will always be instances where a drug will be prescribed, despite its side effects, because the alternative is worse. Every drug is to some extent toxic. Even the purest tap water can be harmful under certain conditions. A doctor must always weigh the disadvantages of a drug against the expected advantages. The best and most extensive legislation in the world will not help him in this decision. But restrictive legislation can tie his hands. The problem, I repeat, is not lack of legislation but lack of exact scientific knowledge.—Austin Smith, M.D., President, Pharmaceutical Manufacturers Association, to 16th Annual Convention, National Pharmaceutical Association, August 7, 1962.

"An Exciting Year"

RUSSELL BUXTON, M.D.
Newport News, Virginia

A review of the accomplishments of The Medical Society of Virginia during the past year and recommendations for the future.

IT HAS BEEN MY PRIVILEGE during the past year to serve as your President and I would like to take this opportunity to bring you up to date on the exciting events of this year and to make to you some recommendations which I feel will be of benefit to the future of The Medical Society of Virginia in its efforts to aid you in carrying out your primary responsibility, which is to provide the best possible medical care for your patients, the citizens of the Commonwealth. Before reporting upon the activities of the Society, I would like to stress the assistance and guidance of your Council which has been invaluable to me, and to point out that the entire Society is greatly indebted to your Committees and their Chairmen who have worked diligently and long to carry out your directives and to prepare for you the reports and resolutions which I am sure you have all read most carefully. Further, I would be remiss if I did not bring to your attention and commend our executive staff, Mr. Robert Howard, Mr. Ed. Smith, Miss Spencer Watkins, and Mrs. La Ruth Spring, ably assisted by the District Representative of the American Medical Association, Mr. Richard Nelson.

These men and women have gone beyond the call of duty in their devotion to the Medical Society and without their untiring aid, the duties of this year would have been most difficult, if not impossible, and I wish to thank each of them for their gracious and efficient assistance. Finally, I wish to thank my wife Virginia for her forebearance and her continuous and thoughtful help during this busy and exciting time.

Before bringing before you some of the major achievements of this year, I would like to confess that I was most pessimistic as to the outcome of the Medical Profession's fight against the proposed King-Anderson Bill. As the year progressed and after attending meeting after meeting in various parts of the country and state and learning of the enthusiasm of the physicians, and particularly of their wives, which became more and more apparent, my misgivings began to evaporate. In all parts of the nation, both physicians and associated lay groups began to be aware of the on-coming battle and proceeded to make it known that they endorsed the principle of medical care for the needy and the aged, financed by locally controlled funds, as opposed the Federally administered plan, financed by additional Social Security taxes. It is now my firm conviction that by proper application of our endeavors, and with the aid of other responsible and loyal citizens, it will be possible to swing this insidious tide of creeping Socialism back toward the sane and responsible form of government envisioned by our founding Fathers when they strove for the adoption of the Constitution of the United States. This battle has been won, but as you have heard before and will hear many times again, it is an early battle and a long war, and it is necessary for us to look ahead to the ways and means to continue to

Presidential Address delivered at Annual Meeting of The Medical Society of Virginia, Washington, D.C., October 14, 1962.

oppose centralization of power in the Federal government.

To return to the accomplishments of this year, let me first say many of these, if not all, were the result of the efforts of your previous Officers and Committees and reached their culmination because this was the year in which the Virginia State Assembly met and thus it was possible to bring your recommendations to fruition. More than sixty-five bills and resolutions pertinent to The Medical Society of Virginia and the health of our citizens were brought before the Assembly, and I am indebted to our legal advisors, Mr. John Duval and Mr. William Miller, for their assistance in preparing a brief resume of the more important of these Bills.

1. *Sterilization Law:*

For many years it has been obvious that the legal status of surgical operations for sterilization had been non-existent and that in doing such an operation, a surgeon had no legal protection against a civil suit. After more than four years of study the General Assembly approved a statute by which any physician who follows the procedure established by law is protected against liability.

2. *The Good Samaritan Law:*

This law which had been considered several times previously, was enacted so that a physician who renders care to an unknown patient at the scene of a highway accident may not be made liable for abandonment of his patient if he fails to continue beyond the emergency care of an accident victim.

3. *Professional Association:*

At the annual 1961 meeting of this Society, the House of Delegates adopted a resolution designed to obtain passage of a statute permitting organization of professional association for qualification, for tax purposes, as a corporation, thus acquiring the right to set up pension funds for their members and employees. The act was drafted by our legal Council and enacted by the Assembly and the medical and other professions can make use of its provisions to obtain some measure of tax relief.

4. *Mental Hygiene and Hospitals:*

A commission was created with the blessing of The Medical Society of Virginia to study and modernize the mental hygiene laws of this State, a move which has long been advocated by our associates in the field of psychiatry.

5. *Highway Safety:*

Your committee on highway safety and traffic control, in an effort to curb the drinking driver, has long advocated the implied consent law which was finally enacted this year. What is more important, however, is that a resolution was adopted at the request of the Traffic Safety Committee, directing the Virginia Advisory Legislative Committee to study the problem of traffic safety as outlined by our Committee, and it is to be hoped, and I am sure that Governor Harrison will agree, that recommendations will be made and adopted in the near future which will decrease the slaughter on our highways.

6. *Kerr-Mills Bill:*

In 1961, the House of Delegates, recognizing that we should make the best possible approach to the well known problem of adequate medical care for the aged, went on record advocating that the General Assembly implement the Kerr-Mills Act. Although modified both as to time of inception and amount of financial aid, a Bill was passed to implement the Kerr-Mills Act in Virginia, so that now we are in the group of twenty-eight states attempting to prove to the Federal Administration that we are truly interested in the welfare of our elder citizens and are making an earnest and realistic effort to insure good medical care for them in a manner consistent with our free enterprise system.

Turning from the legislative field the most gratifying event of the past year has been the truly, terrific response of the mem-

bers of this Society to the many calls for help to work for the defeat of the Bill proposed by the present Administration to use the Social Security method of taxation to finance medical care for the eligible aged. Although it is well known that our two Senators and most of our Representatives in Congress were opposed to this costly and wasteful method of introducing government control of medicine, the medical profession in this State did not remain apathetic but became aroused and let their feelings be known and their influence be felt so that our Congressmen were made aware by their own constituents of their inherent distrust of such legislation. Do not let this enthusiasm abate and continue in your efforts to make certain that all the citizens of this State maintain their steadfast opposition to this iniquitous type of irresponsible law making. This brings me to my first and most important recommendation. Give your close attention to Dr. Milton Davis who will explain to you the objectives of the American Medical-Political Action Committee and the methods by which we can support it. Your Council has already recommended that the Virginia Medical-Political Action Committee be formed and it will be organized in this State under the direction of this Society. I wish to point out to you that with adequate financial aid and firm support by you and your wives this Committee can become a potent factor in the political future of the State of Virginia.

My second recommendation concerns the desirability of establishing closer ties between The Medical Society of Virginia and the various component societies which make it up. During this past summer with the financial assistance of The American Medical Association, the Society secured the service of Mr. Tom Martin, whose duties were to visit the Officers of the many component societies with offers of assistance and to bring to the officers and members of the component societies any matters of importance which had come to the State Society. This plan, although undertaken in a limited way and specifically used in the fight against the King-Anderson Bill, was highly successful and I recommend that a field representative be employed at the State Headquarters and that he be a liaison officer between the Officers and Council of The Medical Society of Virginia and its various component societies. Along the same line you have all received the News Letter, "News and Views", which is the brain child of our executive-secretary, Mr. Robert Howard. It has been well received and seems to be an excellent means of quickly dessiminating accurate and important information to each member. The Council has already recommended that it be continued and I concur heartily in this decision.

My third recommendation is that each member study the advantages of The American Medical Association Loan Fund, which was recently formed to assist medical students finance their studies. Your Council has already agreed that we should endorse this program and support it financially through the Medical Society and advises that it also be supported on an individual basis. I would further like to recommend in an effort to impress upon medical students in this State the value of The Medical Society of Virginia, that the Society consider the desirability of offering, each year, two medical scholarships to be awarded to a worthy student in each of our two medical schools.

Before I give my final recommendation I would like to read to you a few paragraphs from my father's Presidential Address to the Seaboard Medical Association delivered nearly thirty years ago and entitled, *The Inspiration of Medicine*.* "To me, the highest conception of life is to be found in him who seeks to understand and interpret the needs of lives of others and then administer to these needs. The keynote is any life that may be termed successful is expressed in one word, Service. We, live, not to be minis-

*Buxton, Joseph T., M.D.—"Inspiration of Medicine". Virginia Medical Monthly, March, 1924.

tered unto, but to minister. Service, unselfish and sacrificial, if necessary, is the key which unlocks the door of glory and opens up to us those honors which fame cannot give and which money cannot buy. . . . I would invite your attention to the inspiration which comes from the faithful performance of duties that come in the daily routine of life, not the doing of great things but the good we are able to do for the sick and suffering in every day work of life. . . ." So, my last recommendation is that each of us record these words in our minds and so conduct our lives that the "image of the physician" remain untarnished.

321 Main Street
Newport News, Virginia

Tuberculosis in Virginia

Tuberculosis cases in Virginia have increased from 12,881, registered on December 31, 1961, to 13,185, reported by local health departments just recently. Over 2,000 cases last year were newly reported and of these 56 per cent were found in advanced stages of disease.

Is there really more tuberculosis in Virginia? Is the increase in cases due to better case finding? Are we witnessing a climbing tuberculosis rate to which increasing drug resistance is slowly but surely adding each year?

There seem to be no clear-cut answers. Certainly more cases are being found, partly as the result of the increased determination on the part of public health officers and personnel to drive for the elimination of tuberculosis. There is also evidence of increased willingness on the part of private physicians to consider tuberculosis as possible cause for non-specific complaints.

But perhaps more important than these is the realization apparently slowly building on the part of many average citizens that tuberculosis is curable, that cure is simpler and surer and that TB is no longer a sentence to a dim sort of half-life with long years spent in a hospital. This realization, coupled with growing physician alertness, may well account for the fact that more tuberculosis is being found in early stages.

This is not to say the problem of finding tuberculosis early is showing signs of solution. Far too many cases still wait until troubled by symptoms to seek medical care. We still find "missed" tuberculosis cases whose symptoms have been treated by physicians without the opportunity to form continuing patient-relationships and to piece together cohesive pictures out of various complaints. Drug resistant tuberculosis is slowly mounting, most alarmingly in patients who have had no previous treatment for their disease.

It is interesting that the City of Richmond, burdened by a tuberculosis rate (per 100,000 pop.) over twice that of the State and more than three times the national average, and aided by the efforts of the Richmond Area Tuberculosis Association, early this year secured a federal grant to "augment and intensify the tuberculosis control program." Since April a remarkable change has been worked in this city's attack on TB —additional special epidemiological nurses, whose only responsibility is tuberculosis, now reach new TB cases within twenty-four hours after diagnosis. They are further aided by a man employed under the new program as an investigator. Additional clerical staff (partially supported by the tuberculosis association) has also been added to accelerate the program.

Though no assessment of this venture can be made so early, it *has* been turning up many more cases of TB—a vital prelude to the eventual treatment and eradication of tuberculosis and a tribute to wisdom of the men and women responsible for the health of Richmond citizens.

Occlusive Disease of the Extra and Intracranial Arteries

Diagnosis and Medical Treatment

CARY SUTER, M.D.
Richmond, Virginia

Much can be done for the stroke victim with medical or surgical treatment provided there has been early, accurate diagnosis.

STROKES are a major cause of death and disability in our country ranking third just behind cancer and heart disease. Not only does cerebral vascular disease account for 11% of deaths, but it is also the cause of total or partial disability in an estimated 1,800,000 persons. While many of these are elderly, about one-third or over half a million persons were wage-earners when strokes struck them down.[1]

During the past decade there has been an upsurge of interest in the diagnosis and treatment of cerebral vascular disease. While much of this has been due to new means of diagnosis such as angiography, new drugs such as anticoagulants, and new skills and technics in vascular surgery, a more important factor has been the dedicated interest of a few physicians applying the time-honored methods of meticulous clinical observation and examination, careful follow-up study, and rigorous pathological coordination. These studies have clarified the pathology and the signs and symptoms of occlusive disease, of the carotid artery system,[2] of the vertebral and posterior inferior cerebellar arteries,[3,4] and of the basilar artery system[5,6] so that a clinical diagnosis of occlusion in these vessels can now be made in a high per cent of cases. Most important to a fundamental understanding of cerebral thrombosis has been the discarding of the idea that cerebral vasospasm is a cause, or an important factor, in the etiology of transient focal cerebral ischemia. Instead, we now understand the brief focal episodes to be due to occlusive disease of the cerebral vascular tree which produced symptoms when other factors such as a fall in blood pressure, increased viscosity of the blood, and others not yet understood supervene. Furthermore, we have come to understand that in many cases the primary and most severe occlusive lesion is in the large vessels in the neck or even the chest and not in the intracranial vessels.[7,8] In a series of carefully studied cases it has been shown that up to 50% of persons suffering a complete cerebral thrombosis have had one or many warnings in the form of episodes of brief, transient focal cerebral ischemia which, if properly evaluated, might have led to earlier study, treatment, and prevention of disabling or fatal stroke.

With increased understanding of occlusive disease of the extra and intracranial vessels there has come a variety of suggestions both medical and surgical for treatment. Any decision as to whether to use one of these forms of treatment or to withhold such treatment will have to be based on early diagnosis.

From the Division of Neurology, Department of Medicine, Medical College of Virginia, Richmond, Virginia.

Presented at the Annual Meeting of The Medical Society of Virginia, Richmond, October 8-10, 1961.

Differential Diagnosis

The first step in diagnosis is to be aware of the possibilities and have them outlined in some orderly fashion. As far as a complete outline is concerned, this has been prepared by a committee of experts on cerebral vascular disease and was published in 1958 under the title, "A Classification and Outline of Cerebral Vascular Diseases". Copies of this report can be obtained from the National Institute of Neurological Diseases and Blindness, Bethesda, Maryland.[9] This outline has been included in standard textbooks and should serve as a frame of reference for all clinicians and thus assure completeness and uniformity in the study of strokes.

As we see cases of stroke, however, a more clinically oriented outline such as the one below might be useful.

I. Is it a stroke or is it something else?
   1. Brain tumor
   2. Trauma—subdural hematoma
   3. Focal cerebral seizure
   4. Brain abscess or meningitis
   5. Cardiac disease
   6. Metabolic disease—diabetic coma, liver coma, uremia
   7. Toxins—alcohol or poison
   8. Neurosis or psychosis
   9. Myasthenia gravis
   10. Migraine

II. If a stroke, what kind?
   1. Intracerebral hemorrhage due to hypertension
   2. Subarachnoid hemorrhage due to aneurysm or angioma
   3. Cerebral embolisms secondary to disease of heart or large vessels
   4. Cerebral thrombosis (occlusive disease) associated with atherosclerosis

III. If occlusive disease, what type?
   1. Incipient stroke — also called transient ischemic attacks or intermittent cerebral vascular insufficiency
   2. Advancing stroke—also called thrombosis in evolution
   3. Completed stroke—also called thrombosis with stable neurological deficit

IV. If occlusive disease, what is the location?
   1. Cerebral arteries
      a. Anterior cerebral
      b. Middle cerebral
      c. Posterior cerebral
   2. Carotid artery system
   3. Vertebral basilar system
      a. Vertebral artery
      b. Posterior inferior cerebellar artery
      c. Basilar artery
   4. Aortic arch or subclavian vessels

No discussion of all the differential diagnostic possibilities will be attempted. The main requirement is to question every presumptive diagnosis of "stroke" and ask the question "Could this be something else?" and "How can I prove it?". In various large series of patients with strokes subjected to complete cerebral angiography and other studies five to ten per cent have been found to have other unsuspected lesions, especially primary or metastatic brain tumors.

The differential diagnosis of cerebral hemorrhage, embolism, and thrombosis is based first of all on evaluation of the clinical picture and especially the temporal profile. Intracerebral hemorrhage tends to come on relatively rapidly usually in minutes but sometimes in hours advancing to severe neurological deficit and often coma. It is nearly always associated with relatively severe hypertensive disease. Subarachnoid hemorrhage tends to come on suddenly usually in minutes and is associated with severe headache, stiff neck, often without coma, and always with bloody spinal fluid. Cerebral embolism comes on suddenly with-

in seconds or minutes, is associated with disease of the heart or large vessels, often is not progressive; and the neurological defect is usually focal and distinct. Cerebral thrombosis tends to come on relatively slowly over a period of hours or even days advancing in a stepwise or "stuttering" fashion and has often been preceded by episodes of transient cerebral ischemia.

Dynamic Classification

In addition to making a diagnosis of cerebral thrombosis it is very important when considering what treatment, if any, is to be used that a dynamic classification of the clinical status be made.[8] This classification can most simply be divided into three stages which have been labeled: incipient stroke, advancing stroke, and completed stroke. The stage of incipient stroke may be present over weeks or months during which time the patient experiences recurring episodes of transient neurological abnormality, these episodes usually lasting 15 to 30 minutes. During the attacks neurological changes can be demonstrated on examination, but between attacks the patient is normal. These attacks may vary from several a day to one a month, and the pattern of the attacks will suggest the location of the vessel involved. It is during this period of incipient stroke that either medical or surgical treatment might be effective in preventing the next stages.

Advancing stroke may be diagnosed in the patient which during the period of observation by the physician is found to have progressing neurological changes. This period may last several hours or even one or two days; and the stroke may advance in a stepwise fashion over this period. Repeated examination at frequent intervals will determine whether the stroke is advancing and might be very important in a decision as to treatment.

Completed stroke is that condition following a thrombosis when the neurological deficit becomes stable and persistent over a number of hours or days and then slowly may improve over a period of weeks. Many patients seen in this stage will on review of the past course have passed through stages I and II. It is assumed that in this stage a complete or at least a stable lesion of occlusion has occurred.

Location of Occlusion

In addition to the dynamic classification of cerebral thrombosis one also must try to add diagnosis as to the location of the occlusion either partial or complete. This also will have a great bearing on treatment, especially if surgical treatment is to be considered. The more common vascular syndromes are outlined below.

Occlusion of the anterior cerebral artery is seldom diagnosed clinically but Gurdjian has noted nonfilling or narrowing of the proximal portion in 11% of 722 cases of cerebral vascular disease studied by angiography. Signs and symptoms characteristic of anterior cerebral artery occlusion include personality change, confusion, grasp reflex in the opposite hand and "snooting" reflex elicited by tapping the upper lip. Most textbooks describe weakness of the opposite lower leg but apparently weakness of the arm and aphasia may also occur at times with occlusion of the proximal part of this vessel.

Thrombosis of the middle cerebral artery may produce a variety of clinical pictures depending upon which of its several branches are involved. Most commonly thrombosis produces a classical hemiparesis involving the arm more than the leg and associated with aphasia when the dominant hemisphere is involved. If the entire artery is occluded, profound hemiplegia, hemianesthesia, homonymous hemianopsia, and usually coma result. Along with this there is a complete or global aphasia if the dominant hemisphere is involved.

Occlusion of the posterior cerebral artery may produce only contralateral homonymous hemianopsia as its only sign. However,

if the proximal branches are involved a "thalamic syndrome" may result with spontaneous burning pain, loss of superficial and deep sensation, and at times choreo-athetoid movements all on the opposite side.

Carotid artery occlusion produces signs and symptoms similar to those produced by occlusion of the middle cerebral artery. Whether or not occlusion of the carotid artery produces symptoms at all depends upon the condition of the collateral circulation through the opposite carotid artery, basilar artery, and the circle of Willis. A variety of findings may suggest disease of the carotid artery rather than of the cerebral vessels. These include ipsilateral, monocular blindness or dim vision, decreased pulsation of the carotid as palpated in the neck or pharnyx, a bruit over the carotid anywhere in the neck, a Horner's syndrome on the side of the occluded vessel, a difference in retinal artery pressure as tested by compressing the globe with the finger during funduscopy and observing the ease with which the retina blanches. At times in patients with hypertension a lesser degree of retinopathy is noted on the side of the occluded carotid artery. In addition to contralateral weakness and numbness the patient may complain of ipsilateral headache.

Occlusion of the vertebral artery or of a posterior inferior cerebellar artery produces some degree of the lateral medullary syndrome.[3,4] This has been extensively reviewed recently and includes dysarthria, dysphasia, vertigo, nausea and vomiting, and hiccups as generally observed symptoms. On the side of the lesion there is cerebellar incoordination with a tendency to fall to that side, pain in the face and head and at times decreased sensation in the face, lateral nystagmus greater to the side of the lesion, and decreased corneal reflex on the side of the lesion. There is usually a Horner's syndrome on the side of the lesion. Contralaterally there occurs decreased sensation over the body below the neck and at times pain in the contralateral arm or leg. At times weakness of the face as well as the extremities on the same side as the lesion is complained of, but this is seldom severe.

When both vertebral arteries or the basilar artery itself is involved, a much more severe clinical picture appears. This includes multiple and bilateral cranial nerve deficits, bilateral longtrack signs with either alternating hemiplegia or quadriplegia, and usually bilateral or alternating Babinski signs. Also, there are signs of decreased circulation in the posterior cerebral artery with hemianopsia or complete cortical blindness. Complete occlusion of the basilar artery is seldom compatible with life.

Occlusive disease in the arch of the aorta and involving the subclavian vessels may produce any combination of carotid or vertebral basilar artery syndrome and in addition often produces a difference in radial and brachial pulses as well as a variety of murmurs and bruits over the region of the arch of the aorta, subclavian, and brachial vessels. Recently, episodes of basilar artery system insufficiency have been described in patients with occlusion of the subclavian proximal to the vertebral artery.[10] This apparently results in retrograde flow of blood down this vertebral to the brachial circulation, and this shunt or "subclavian steal" results in decreased flow in the basilar system. This is another example of the importance of extracranial occlusive disease as the cause of strokes.

History and Physical

Obviously, a complete and clear history is of great importance in making a correct diagnosis of the type and location of the stroke. This should include information about past or current illnesses such as diabetes, heart disease, and syphilis. Any previous episodes of an episodic or transient nature even though mild should be described and evaluated in detail and a chronological step-by-step description of the present episode should be obtained. The exact time in minutes and hours and the circumstances attendant upon onset and progression should be recorded.

A complete physical examination should be done to discover and rule out other disease processes. As far as that part of the examination more directly concerned with the stroke one should make it a rule to approach the patient at first without either tools or gadgets and with as few preconceived notions as possible. The purpose should be to find out what the patient can and cannot do. One should find out as quickly as possible whether he can speak, swallow, move both legs and both arms, sit up or stand up or walk, follow directions, or does he know who or where he is. The neck should be tested for stiffness and moved from side to side to test for rigidity. The legs and arms should be tested for rigidity or flaccidity and for strength. Such gross examination is important at the beginning and can be done no matter what the condition.

The next step and one of greatest importance in the diagnosis of stroke is to palpate the radial pulses in both wrists, carotid and temporal pulses, brachial pulses, and pulses in the feet and legs. Along with this blood pressure should be obtained preferably in both arms and with the patient both lying down and standing if their condition allows.

Next the stethoscope should be used to listen for murmurs or bruits over the large vessels in the chest, over the carotids, and over the eyes. To listen for a bruit over the eye the patient is instructed to close both eyes gently; the stethoscope is applied over one eye, and he is then asked to open the opposite eye.

Careful examination of the eyes fundiscopically to rule out papilloedema, to note the degree of retinopathy, and to make a gross test of retina artery pressure is always important.

Following these general types of examination the more routine neurological examination of muscle stretch reflexes, Babinski signs, tests for coordination and sensation can be carried out.

A brief but definite recording of both positive and negative findings is essential so that a repeat examination in 30 or 60 minutes may effectively determine whether the condition is improving, is static, or is becoming worse.

Basic Studies

Certain basic studies should be done in all cases. These studies which are available in all hospitals are listed below:

Skull x-ray
Chest x-ray
X-ray of the cervical spine (in vertebral basilar syndrome)
Blood counts and hemoglobin
Urinalysis
Blood sugar and blood urea
Prothrombin time
Serology
Cerebral spinal fluid examination
Electrocardiogram

The x-rays, blood and urine tests, and cerebral spinal fluid examination can be done quickly and provide within a period of minutes or certainly an hour or two a basis for early treatment or decision as to other tests or consultations needed.

Special Studies

A variety of special studies are available in many hospitals and medical centers and certain ones of these may be necessary or helpful in completing the diagnosis and decision as to treatment. The more useful of these include:

1. Angiography — carotid, vertebral, subclavian or aortic arch
2. Electroencephalogram
3. Electroencephalogram with carotid compression
4. Carotid compression with clinical observation
5. Ophthalmological examination:
   Arm-retina circulation time using fluorescent dye
   Retinal artery pressures by ophthalmodynamometry
   Visual fields

6. Pneumoencephalogram
7. Psychological tests including tests for aphasia
8. Other blood studies:
   Special coagulation factors
   Cholesterol levels
   Electrolytes
   Sedimentation rate

At present the value of these special studies will vary a great deal depending upon the skill of the physician performing and interpreting them. The more these tests are used the more proficient one becomes in their use. Even so, none of these tests can substitute for clinical knowledge and judgment.

Angiography is an excellent example of the principles stated above. The more angiograms done by a particular physician using modern equipment and technic the more clear pictures he obtains and the less complications result. However, in a majority of patients with strokes the clinical findings are diagnostic and cerebral angiograms are not necessary. To perform angiograms in these cases is evidence of lack of clinical skill and judgment, does not benefit the patients, and subjects them to additional expense and to some risk of complication though it is slight. Angiograms are essential, however, for evaluation of the patient with disease of the large extracranial vessels if vascular surgery is contemplated. In fact multiple angiograms may need to be done since clear demonstration of both the intracranial and extracranial vessels should be obtained if possible before surgery is performed. Also in cases without typical clinical pictures, and there are a large number of these, angiography is often the best means of clarifying the diagnosis. Angiograms will not only demonstrate a vascular occlusion if present but will also aid in the diagnosis of other intracranial lesions, such as tumors, subdural hematomas, and aneurysms.

Electroencephalography while it entails no risk to the patient has not been used extensively in evaluation of the acute stroke (advancing or completed stroke) probably because it often involves moving the patient and takes up to an hour to perform. Shorter, serial EEG's done at the bedside might give more information. EEG has had its widest application in evaluation of the patient with recurring episodes thought to be due to transient cerebral ischemia (incipient stroke). In such cases if the EEG shows a definite epileptogenic (spike) focus or persistent slow wave (delta) focus the diagnosis of incipient stroke is unlikely. Also, the EEG combined with carotid compression may show diagnostic changes. Carotid compression alone often gives a dramatic response resulting in an immediate episode of the type the patient has described. It is not completely without danger, however, and has occasionally resulted in completed strokes and even death. Combining carotid compression with the EEG adds a safety factor since focal EEG changes usually occur before the full blown clinical attack occurs and carotid compression can be stopped sooner.

Expert ophthalmological examination can be of great help in the diagnosis of strokes. Retinal artery pressures are very helpful when carotid occlusion is suspected, and visual field examinations may help localize intracranial lesions.

Pneumoencephalograms are useful mainly when difference from a mass lesion is not certain.

Psychological tests often help in evaluating the degree of organic brain deficit and determining if psychological factors such as depression are present. Special tests for aphasia are often useful.

Blood studies of special coagulation factors are now the subject of research in the hope that they may offer guidance in the use of anticoagulants or of thrombolytic agents.

Treatment

The general aim of all treatment of stroke is to save as much brain tissue as possible from permanent damage. The aim in any

specific situation will depend particularly on the stage of the stroke. In incipient stroke the aim is to prevent the recurring attacks of transient ischemia and especially to prevent the final development of thrombosis and occlusion. An even more ambitious aim might be to remove or decrease the degree of partial occlusion present already. In advancing stroke the aim of our treatment must be to stop the advancement of the occlusion if possible and to save as much brain tissue from damage as possible. Here, also, removal of the occlusion by surgery or thrombolytic agents might be an ambitious objective. In completed stroke removal of the occlusion is probably ineffective, and the aim can only be to save as much tissue as possible from increased or permanent damage and to prevent complications.

In the treatment of stroke there are a number of simple and essentially harmless means at hand which may be of help though some of these are not proven. In the stage of incipient stroke these include such harmless measures as institutions of low fat diet and weight reduction with treatment of any other disease such as hypertension or diabetes. Also, in incipient stroke avoidance of any situation that would produce a lowering of blood pressure is strongly recommended. In this regard special care to avoid hypotension should be taken during any surgical procedure on a patient who has suffered from recurring transient ischemic episodes.

In advancing stroke certain simple procedures may have value. The institution of intravenous fluid with glucose and vitamins will give nutrition as well as hydrate the patient and prevent hemoconcentration with increased tendency to thrombosis. Also, measures to keep the blood pressure elevated and avoidance of measures that might suddenly drop the blood pressure are of value. As a simple example the patient should be kept flat with the head on a small pillow and should not be elevated in bed in a position that would cause a fall in blood pressure. If definite hypertension is present, its reduction should be cautious and not precipitous. The inhalation of 5 or 7% CO_2 and oxygen mixture to supply oxygen as well as produce vasodilatation has been suggested, but clear proof of its effectiveness is not available.

Prevention of complications can be aided by good nursing care. Important is the care of the bladder with the use of sterile conditions if a catheter must be used and immediate treatment of any urinary tract infection if it develops. Routine use of prophylactic antibiotics is not indicated, and these should be used specifically as any need for them arises.

At the present time the two large questions concerning treatment of stroke involve whether or not to use anticoagulants and whether or not to undertake surgical procedures in certain cases. On the horizon looms the possibility of using or not using thrombolytic agents.

There is extensive literature concerning the use of anticoagulants in all types of occlusive cerebral vascular diseases.[12,13,14,15] The evidence as to the use of anticoagulants and as to their dangers is not clear and is often controversial. This apparently is due in a large measure to the lack of consistency between studies as to care and the original diagnosis and evaluation of the patient. It is also due in part to the difference in the types of anticoagulants used and in the level at which anticoagulant activity has been maintained.

At the present time there are five conditions in which the use of anticoagulant drugs may be definitely considered with some evidence that there is value in their use in each of these conditions.

1. Incipient stroke (transient ischemic attacks) of the carotid artery system
2. Incipient stroke (transient ischemic attacks) of the vertebral basilar artery system
3. Cerebral thrombosis advancing other-

wise of the vertebral basilar artery system
4. Advancing stroke of any system
5. Recurrent embolic strokes secondary to disease of the heart or large vessels

The evidence is perhaps best that anticoagulants are most useful in the transient ischemic attacks of whatever system and are also useful in conditions that predispose to recurring embolic phenomena. The use of anticoagulants in vertebral basilar artery thrombosis despite some risk is based on the ultimately extremely poor prognosis in this condition. The use of anticoagulants in advancing stroke in other systems is on less firm ground and may carry more risk. There is no evidence that the use of anticoagulants in completed stroke is of any value.

Contraindications to the use of anticoagulants include primarily any condition which predisposes to bleeding such as recent surgery, history of peptic ulcer, hematuria from any cause. In addition anticoagulants are usually contraindicated in any patient with definitely severe hypertension.

The use of anticoagulants at least in the advancing stroke is best begun by the use of heparin usually 50 mg. every six hours and then followed by the more long acting anticoagulants either dicumarol or coumadin. There is a difference of opinion as to what level of anticoagulation should be aimed at with some persons trying to keep the level at 30 to 40% and the others aiming at 15 to 25%. The complications due to anticoagulation therapy must to some degree depend upon the level which one attempts to maintain.

Information as to when it is safe to stop anticoagulation therapy is incomplete but there are suggestions that any sudden stopping of anticoagulation therapy carries the danger of recurring occlusive disease. This is probably unavoidable particularly if anticoagulation has gone over a period of years since there is no evidence that the anticoagulation retards the progress of the basic atherosclerotic process. We have no clear guide in this field. Some cases are treated with anticoagulations for only a month or six weeks while hospitalized. Others have been carried for six months and then discontinued with the advice to start anticoagulation with any recurrence. This will have to continue to be an individual matter until better means of decision are at hand. Some have suggested that studies of special coagulation factors may help one in making this decision.

A discussion of surgical therapy is not within the scope of this paper, but the physician treating patients with strokes should be aware of the surgical possibilities and seek surgical consultation when it is indicated and available.

Early ambulation and physical therapy reduce complications, in the end reduce nursing care, and shorten hospitalization.

Conclusions

The increased concern with the early diagnosis of incipient stroke may make prevention of completed stroke possible. A sense of urgency should be adopted in seeing patients with stroke so that a diagnosis can be made within minutes or at most hours and treatment if indicated started early. A variety of new tests and procedures are available to us for use in diagnosis, and we should become familiar with their use and avail ourselves of their help when indicated. Simple means of treatment such as avoiding hypotension induced by drugs or surgery and avoiding hemoconcentration by proper hydration should not be overlooked. Physiotherapy and rehabilitation should be started early. More complicated treatment such as anticoagulation therapy, surgical procedures, and thrombolytic agents should be adopted according to our best sources of information as to indication plus a careful evaluation of the capabilities both of ourselves, our institutions, and our patients. There is no place at the present time for any dogmatic opinions either as to diagnosis or treatment of strokes, and progress will be

best served by an open-minded attitude towards new suggestions for the diagnosis and treatment. No matter what form of treatment is developed early accurate diagnosis must be the basis of all our work, and no tests can substitute for clinical skill and judgment.

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A Senator's Opinion About Drug Hearings

I am sure you expect me to say something about the drug bill to which the bureaucracy of the United States Congress has assigned the unglamorous designation, S. 1552. You know, despite all the fuss and feathers, the *bill* is really not so important. After all, thousands of bills are introduced in the Congress each session. What *is* important about this bill is the fact that it was the vehicle for one of the longest, dreariest, most biased, most unfair, most cynical—I could go on—series of hearings which ever disgraced the United States Senate.—U.S. Senator Roman L. Hruska to Fordham University College of Pharmacy, April 29, 1962.

Attitudes Toward a Medical Career Among Students at the University of Virginia Medical School

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The motives of the medical student and his attitudes toward a medical career vary with his academic standing and his years in medical school. A better understanding of these attitudes and their causes will help to improve medical education.

WORKERS in the field of medical education have always been interested in the attitudes and motivations of students and the psychological processes involved in becoming a physician. Especially in the past decade numerous investigators have attempted, by means of broad surveys and personality studies in depth, to define these processes more objectively. Their long-range aim, of course, is to improve medical education. Hopefully, new knowledge about the attitudes and motivations of the students can be utilized by schools in their selection of applicants and in the revision of curricula.

The present study of attitudes toward a medical career is the result of a questionnaire survey of students at the University of Virginia Medical School in December, 1958, and took its cue from similar investigations carried out on a national scale by the Association of American Medical Colleges. Some of the questions in this study were similar to those asked by the AAMC. However, this is a cross-sectional survey at one school and sheds light on local features. The study was sponsored by the Department of Neurology and Psychiatry, in which the author was a resident psychiatrist at the time.

At the time of this study there were 287 students enrolled in the University of Virginia Medical School. Each was given a questionnaire to complete in his leisure time. The students were told that this survey was aimed at understanding their motivations toward a medical career. They were identified by name on the questionnaires in order that the answers might be correlated with their academic standing. Assurances were given that the identity of the students would be known only to the author, who had no influence over their grades or subsequent medical school careers. Perhaps the fact that the study was not "anonymous" exerted a subtle influence on the results, despite the tabular, "objective" nature of the questionnaire.

Data and Discussion

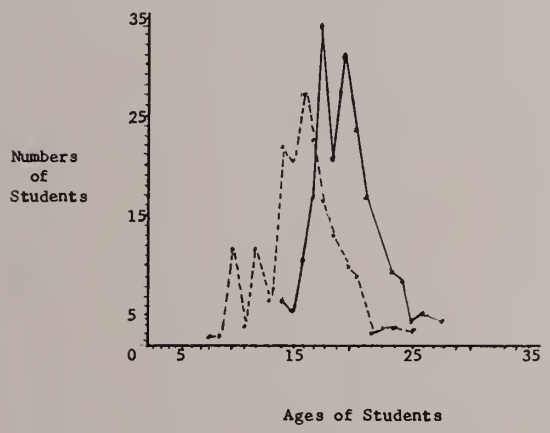
Out of 287 in the student body, 206 (72%) completed the questionnaire. Response was lowest from the first year group (66%), highest from the third year (78%). Among the sophomore, junior and senior classes, whose grades were available, 36% of the respondents were in the upper third of their cumulative class standing, 41% in the middle third and 23% in the lower third.

A large proportion of this group came from families with a medical tradition. Forty-five percent of them had close relatives in the field, and 10% had fathers who were doctors. Two-thirds of the respondents

were residents of the State of Virginia. Average ages ranged from 22.5 years for the first year students to 26.1 years for the fourth year. In keeping with the current national trend there were many married students—increasing from 33% of the freshmen to 61% of the seniors.

Figure 1

Numbers of students plotted against ages when they first though of medical career -----, and ages when they decided definitely to go to medical school _____.



The broken line in Figure 1 shows the ages at which the students first thought seriously of medicine as a career, and the solid line shows the ages at which they definitely decided to go to medical school. The bulk of them, 55%, first considered medicine during high school; the same proportion made their *definite* decision during college. Only 8% felt committed to medical school before age 16 and only 8% after age 25. Forty-eight percent of the group considered that the act committing them to medicine was the choice of an undergraduate premedical curriculum; 30% felt committed only after acceptance of their applications by the school.

There is general agreement among educators that the choice of career fields during late adolescence is rarely based upon realistic knowledge of the fields chosen. The medical students surveyed here felt in retrospect that they had been quite green when they chose their careers. Within a very short time after entering school they recognized that they did not know "what they were getting into", regardless of the prior amount of contact with doctors and hospitals.

TABLE 1
"How Important Were the Following Factors Influencing You to Study Medicine"

	Unimportant	Some Importance	Very Important
1. Physicians of your acquaintance	21%	51%	28%
2. Expressed wishes of either parent	69	28	3
3. Unexpressed wishes of parents	47	49	4
4. Illness of self or close associate	73	22	5
5. Influential books, movies, etc.	61	35	4

Table 1 presents answers to the question, "How important were the following factors in influencing you to study medicine?" The results were happily almost identical for each of the four classes, hence the total group is represented in the table. Clearly, personal acquaintance with physicians was most influential, lending support to the thesis that a human "model" played a key role in the determination of career choice. Space was also provided for the students to list other factors influencing them in their decisions. About one out of ten mentioned their observation or participation in medical work or work in related fields. Had this factor been named in the original questionnaire, the proportion mentioning it would probably have been greater.

TABLE 2
Other Careers Seriously Considered

Basic science	24%
Teaching	21%
Law	15%
Engineering	14%
Dentistry and Vet Medicine	10%
Social sciences	10%
Armed forces	9%
Business	8%
Ministry	6%
Other	21%

Table 2 shows other careers seriously considered as alternatives. The total is greater than 100% since some students named several alternatives. It is interesting that most

of them mentioned professions of high prestige value which would also have required post-graduate training. Scientific and technical fields dominate the list. Few considered business careers—apparently there is little overlap in areas of interest between apprentice businessmen and apprentice doctors. Perhaps more surprising in view of the prevalent humanitarian motives among these medical students (to be cited later), only 6% had considered the ministry.

TABLE 3

PERCENTAGE OF EACH CLASS CONSIDERING EACH MOTIVE "VERY IMPORTANT" (A) AT TIME OF DECISION TO STUDY MEDICINE AND (B) AT TIME OF SURVEY

	First Year Class		Second Year Class		Third Year Class		Fourth Year Class	
	A	B	A	B	A	B	A	B
The desire to:								
1. Acquire knowledge and technical proficiency	39%	73%	30%	66%	39%	68%	33%	78%
2. Be of service to people	59	69	50	60	56	53	63	67
3. Attain professional prestige	4	12	14	18	24	25	20	27
4. Be economically secure	12	12	20	20	26	28	20	37
5. Acquire more self-understanding	22	31	12	16	9	15	4	10
6. Attain social prestige	2	2	10	8	13	11	12	12
7. Make original contributions to science	14	18	10	14	11	21	18	18

Table 3 provides a list of motivations commonly thought important in the choice of professions. The students were asked to grade each "motive" according to its importance at the time they decided to study medicine (column A) and at the time of the survey (column B). Column A therefore presents the students' *retrospective* evaluation of the motives leading them to choose medicine, and column B presents their motivations at the time of the study. The figures in Table 3 show the percentage of each class considering each motive "very important". Most striking is the greater value the students attached to the acquisition of knowledge and technical proficiency, once they began medical school. The freshmen, only three months into their medical careers (the survey was done in December), already rated this motive as highly as did the members of the upper classes. The desire to be of service to people held its importance throughout the progress of the medical curriculum, but the importance of technical knowledge immediately became quite impressive as the students were made aware upon entering school that they would best be of service to people by knowing, among other things, where the saphenous vein goes and what the Krebs Cycle means.

In comparison with the freshmen, there was a definite tendency for members of the upper classes to give greater importance to the drives for professional and social prestige and economic security—and to believe in retrospect that these motives had been of importance in their original choice of a profession. This may represent an increase in "cynicism" among the upper classmen; but these students still rated service to others as a prime objective. It is possible that their more widespread recognition of financial and prestige motives simply represented greater self-knowledge and a clearer understanding of motivations underlying their ideals.

A reverse trend was noted among the four classes in the desire to gain more self-understanding. Three times as many freshmen as seniors felt that this was quite important in their career choice. Again, one may postulate that even the most introspective students became increasingly preoccupied with the emphasis on knowledge and technical skill as they proceeded through the medical curriculum.

Table 4 presents the same data broken down according to academic standing among the members of the second, third and fourth year classes. In comparison with other students, the members of the lower third felt that the desire for acquisition of knowledge had been of less importance in their original career choice. However, the weight given this motive was equal among the members of each academic group at the time of the survey. By contrast, the members of the lower third ranked the "service" motive highest, both at the time of their decision to enter medicine and at the time of the questionnaire. It is reasonable to conjecture that academic standing will be higher among students who are more strongly motivated to acquire knowledge. But is there any cause-effect relationship among students of the lower third between their greater motivation for service and their lower grades? No valid answer can come from a study this superficial, but it is a subject that merits further investigation.

The biggest difference among the academic groups in Table 4 is in the rating given the desire to make contributions to science. As expected, many fewer members of the lower third gave it a high rating. A reverse though less striking trend is evident when it comes to professional prestige and economic security, with more upper third students considering these motives very important.

TABLE 4

PERCENTAGE OF EACH ACADEMIC THIRD CONSIDERING EACH MOTIVE "VERY IMPORTANT" (A) AT TIME OF DECISION TO STUDY MEDICINE AND (B) AT TIME OF SURVEY

	Upper Third		Middle Third		Lower Third	
	A	B	A	B	A	B
The desire to:						
1. Acquire knowledge and technical proficiency	31%	70%	42%	72%	21%	70%
2. Be of service to people	51	56	55	59	68	73
3. Attain professional prestige	22	32	17	20	21	18
4. Be economically secure	25	35	18	25	24	24
5. Acquire more self-understanding	7	15	9	9	12	21
6. Attain social prestige	16	13	9	11	12	6
7. Make original contributions to science	18	20	12	20	3	6

Table 5 presents a key part of the study, as it deals with the students' current attitudes toward various aspects of their medical school careers. They were asked: "Grade the following aims in medical education according to their importance to you now." The

TABLE 5

AIMS OF MEDICAL EDUCATION—PERCENT CONSIDERING EACH AIM "VERY IMPORTANT"

	First Year	Second Year	Third Year	Fourth Year	Upper Three Classes Grouped According to Academic Standing		
					Upper Third	Middle Third	Lower Third
1. Preparation for general practice	61%	40%	54%	29%	40%	31%	62%
2. Preparation for specialty	29	28	33	65	42	48	32
3. Experience in research	10	8	9	12	13	12	0
4. Knowledge of pre-clinical sciences	57	42	22	31	38	31	21
5. Knowledge of clinical medicine	51	48	78	78	69	75	56
6. Habits of continuing self-education	57	46	65	71	67	58	56
7. Evaulation and management of emotional aspects of illness	47	28	32	41	35	32	32
8. Understanding role of physician in community	29	18	19	18	16	23	12
9. Developing rapport with patients and colleagues	41	46	46	49	36	55	47

figures given in the table are percentages of students considering each aim "very important". The results are broken down by class and by academic standing.

Preparation for general practice was of greatest importance among freshmen; and in the three upper classes this aim was much more highly rated by members of the lower academic third. Conversely, it was the seniors who rated preparation for a specialty most highly. This is partly explained by the fact that fourth year students were already thinking in practical terms about internship and residency training. Furthermore, there were numerous direct and indirect pressures upon these students to go into specialties, not the least of which was the fact that virtually all the clinicians who taught them were specialists and members of the full-time staff. There was an implicit upgrading of the academic career in the formal and informal teaching by the influential members of the faculty; this pressure was most evident to fourth year students and members of the upper third.

The aim to acquire experience in research was given a disappointingly low rating. This was most notable among students in the lowest academic group, none of whom felt that this was very important.

As expected, knowledge of the pre-clinical sciences became less important among the juniors and seniors. But among these upper classmen, members of the top academic third retained an interest in the preclinical field to a greater extent than students with lower grades.

As students proceeded through medical school they appeared to become increasingly impressed with the necessity to acquire habits of continuing self-education. This was in line with the faculty's emphasis on keeping up with the medical literature in the clinical years. The trend was somewhat more notable among students with higher grades. Presumably these men read more widely and their greater breadth of interest was reflected in their class standing.

It is interesting to note the great difference between freshmen and sophomores in the value assigned to managing the emotional aspects of illness. By December of the academic year this aspect of medicine had been newly discussed with the first-year men by members of the departments of Medicine and Psychiatry. But there is a tendency among many students to reject the importance of emotional factors as they are forced to acquire knowledge in fields apparently unrelated to psychiatry. This holds true in the clinical years as well. A student in his third year clerkship on psychiatry may live up to what is expected of him there—developing good techniques of psychiatric examination and a lively curiosity about mental processes and psychosomatic mechanisms; later in the academic year the same student, single-mindedly focusing on congestive heart failure and acute abdomens, may openly deny the value of psychiatric knowledge and techniques. Sometimes such denial is expected of him by interns and residents on medicine and surgery.

TABLE 6

PLANS AT START OF SCHOOL COMPARED TO CURRENT PLANS

	First Year	Second Year	Third Year	Fourth Year
General practice:				
Start	35%	38%	43%	37%
Current	31	22	30	8
Specialty:				
Start	39	34	28	35
Current	39	40	48	67
Undecided:				
Start	26	28	29	29
Current	30	38	22	25

In the matter of post-graduate career aims, refer to Table 6. The students were asked to compare their plans upon entering medical school with their plans at the time of the survey. The percentage of students intending to go into general practice and specialty practice was roughly the same for all four classes at the outset of medical school. As might be predicted, specialization acquired a great many more adherents as students reached the fourth year.

Choice of individual specialties became important only among the seniors, 28% of whom were considering obstetrics and gynecology, 26% internal medicine, 24% pediatrics and 20% general surgery or a surgical subspecialty. There was some overlapping, since a number of seniors were seriously considering more than one specialty at the time of the survey. The relatively high number considering ob-gyn is a reflection of the great favor this service found among students at the University of Virginia, where fourth-year obstetrics was the most popular clerkship. The proportion is more striking when one considers the fact that only a third of the seniors had gone through that clerkship at the time of the survey.

TABLE 7

PERCENTAGE IN EACH CLASS NAMING MEMBERS OF EACH DEPARTMENT AS INSPIRATIONAL

	First Year	Second Year	Third Year	Fourth Year
Medicine	29%	20%	48%	59%
Surgery	8	6	30	14
Pathology	0	42	19	6
Ob-Gyn	0	2	2	16
Anatomy	12	10	6	0
Physiology	0	10	2	6
Pediatrics	0	0	6	10

In a related question, each student was asked to name one or more faculty members considered "inspirational" by him. The first year students mentioned 16 different staff men, the sophomores 30, the juniors 43 and the seniors 40. Table 7 shows the percentages of students in each class mentioning a member of each department. Throughout the four classes the members of the Department of Medicine yield first place only among the sophomores, more of whom considered pathologists inspirational.

Some individual faculty members were especially influential. Table 8 shows these men listed anonymously according to their departments, with the percentages of students naming each man as influential. It is unlikely that this has much to do with popularity in the usual sense: the top man on this list, with nearly twice as many "votes" as the second man, was generally regarded by students with more awe than warmth.

TABLE 8

INSPIRATIONAL FACULTY MEMBERS, IDENTIFIED BY DEPARTMENT, WITH PERCENTAGE OF STUDENTS NAMING EACH MAN

Medicine	22%
Medicine	13%
Pathology	11%
Medicine	10%
Pathology	7%
Surgery	7%
Medicine-Microbiology	6%
Neurology	6%
Medicine	6%

The preponderance of internists on the inspirational list is not surprising in view of the fact that throughout the entire four years they spent more time teaching the students, both formally and informally. In spite of this, as mentioned above, more seniors were considering Ob-Gyn as a specialty at the time of the survey. There was a minimum of tension among clinical clerks on the obstetrical service. On the medical wards there was a greater breadth of demands on the students; they regarded the amount of laboratory work as burdensome; they felt under pressure to learn about a field that seemed to them infinitely broad and to produce, from day to day, evidence that they were learning what they were supposed to. Whatever the facts may be, there was a tendency among seniors to regard the life of an internist as more rigorous than the life of an obstetrician.

Conclusion

A study designed to measure group attitudes by means of a questionnaire has many drawbacks. In this investigation, for example, the students were in effect asked to weigh the importance of external and intrapsychic influences impelling them to study medicine. It would be naive to assume that very many of them could express these things accurately, or that they would take much time to introspect while filling out a questionnaire. Doubtless, many of the respondents gave a lot of thought to their

answers, while others scribbled hurriedly through the pages. This introduces into the responses a "quality" differential that cannot be measured. Furthermore, it is difficult to compose a questionnaire which gives enough latitude for the expression of individual ideas and at the same time asks enough leading questions so the answers can be classified in a meaningful way.

In the interpretation of data gathered in this study several difficulties are also obvious. For instance, consider a question to which members of the first year class give a strikingly different response from members of the third year class. It may not be legitimate to assume that this difference is entirely attributable to the fact that one group has been in school two years longer than the other. The freshmen were a relatively cohesive class, all studying the same subject matter at the same time: the attitude of the entire group could have been altered by unknown factors at the time the questionnaire was administered. Perhaps they were apprehensive about an examination or uniformly hostile to some faculty member who had recently "crossed" them. The third year students, on the other hand, were not as truly a unit. At the time of this study they had been clinical clerks for only three months: some of them had spent almost all that time on the medical wards—others on psychiatry, surgery or pediatrics. This might tend to produce quite a variation in their attitudes.

Add to the above considerations the fact that the students had to identify themselves on the questionnaires, thereby perhaps feeling subtly compelled to answer differently than if they had been anonymous. It is apparent that one must be cautious in drawing conclusions from this type of study, and that too many unknown variables are present to warrant the use of statistical methods in evaluating the results.

This is a survey, not of unconscious motivations, but of students' expressed attitudes towards a medical career. The results suggest that on some points these attitudes varied not only according to the length of time a student had been in school, but according to his academic standing as well. In addition, some inferences about the questionnaire results are justified on the basis of the author's knowledge of local factors at the school where the survey was conducted.

Examining this material, perhaps it is most important to consider the alterations of the ego ideal which a medical student experiences as he proceeds through school. More than ever before in his life he is preoccupied with the necessity to learn new facts and skills. More significantly, he is faced with a brand new set of individuals to pattern himself after. To be like Dr. X he must understand the pathologic physiology of arteriosclerotic heart disease. If he fails to do this sort of thing adequately, it will not result merely in poor grades: he will also have failed to live up to the requirements to be a certain kind of person. Once a young man or woman enters upon the intense experience of medical school, his picture of what he wants to become begins to change; and matters which were formerly quite peripheral to his concern become charged with personal meaning.

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Kartagener's Syndrome

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An interesting case report of the association of situs inversus, bronchiectasis, and paranasal sinusitis.

THIS PAPER reports a case of Kartagener's syndrome, which is a triad consisting of situs inversus with bronchiectasis and paranasal sinusitis. The association between situs inversus and bronchiectasis was first described by Siewert in 1904 in a 20-year-old youth, but Kartagener in 1933 and 1935 reported 11 cases with the triad.[1] In 1923 Gunther made the first report on multiple siblings with the syndrome and in 1959 Safian and Mandeville made the first report of the triad in clinically identical twins and a female sibling.[2] At the present time over 100 cases of Kartagener's syndrome have been described.

Report of Case

The patient is a 23-year-old white bachelor who was first admitted to the Richmond Eye Hospital on 9-11-57 because "he had his nose broken as a baby" and has had difficulty in his breathing since the accident. He also complained of drainage from his nose. Sinus roentgenograms confirmed the diagnosis of chronic pansinusitis, and on 9-12-57 under local anesthesia bilateral maxillary sinusotomy was done. At the same operation nasal polypectomy and submucous resection were done for a nasal polyp and deviated nasal septum, respectively. He was discharged on 9-14-57, and was not followed until August of this year.

The patient claimed that he did well for a month following the operation but was readmitted to the hospital on 9-5-61 with the chief complaint of "sinus problem" and the relevant history of frequent frontal headaches, large amounts of nonpurulent nasal drainage, and a "life-long" history of productive cough with malodorous sputum.



Fig. 1.

There was no history of hemoptysis, dyspnea, or weight loss. No other member of his family had any sinus or respiratory symptoms.

Physical examination revealed a well-developed, well-nourished white male who spoke in a nasal voice. Blood pressure was 130/80, pulse 72 per minute, and temperature 98.6. The point of maximal impulse of the heart was found in the right chest,

Editor's Note: This article was written while Dr. Lau was a senior medical student at the Medical College of Virginia.

the chest was dull to percussion, and moist rales were heard in both lung fields.

Laboratory studies. The white cell count was 9800, hemoglobin of 14.2 gm. per 100 ml., and the urine was normal. The clinical diagnosis of Kartagener's syndrome was con-



Fig. 2.

firmed by roentgen studies of the sinuses and chest made outside the hospital. The studies showed the presence of situs inversus, bronchiectasis, and paranasal pansinusitis as shown in Figures 1 and 2. Bacteriological studies were not made. With the severe sinusitis, it was felt that this patient would benefit from surgery. On 9-6-61, under 2% novocaine and adrenalin local anesthesia and with cocaine anesthesia a left ethmoidectomy and Caldwell-Luc procedure were done with marked improvement in his symptoms. A similar procedure is planned for six months from now on the right side.

Summary

Although there is no definitive treatment for Kartagener's syndrome it has been found in a number of cases that surgery was of great value in alleviating the symptoms.

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Richmond Memorial Hospital
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W. B. Saunders Company features the following recent books in their full page advertisement appearing elsewhere in this issue:

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Fort Blackmore, Virginia

The author reports good results with testosterone in the treatment of cancer of the uterus.

THE QUESTION of the postoperative use and the dosage of sex hormones in cases of carcinoma uteri submitted to the JAMA by a doctor from Illinois was discussed in the Journal, January 27, 1962, p. 310, by Dr. Clayton T. Beecham. I would like to underscore in Dr. Beecham's answer that estrogens stimulate an adenocarcinoma and for this reason should not be used in women with endometrial cancer or adenocarcinoma of the cervix

In an article published in 1958, Josef Tynecki,[1] the director of the Second University Hospital for Obstetrics and Gynecology, Lublin, Poland, reported on his experiences with male sex hormone in the treatment of hopeless cases of genital carcinoma in women. Testosterone propionate was used by him and the dosage was 25 mg. given i.m. once daily for two weeks, then twice a week until 2-4 g. were given. Also given by him were 25 mg. of Vitamin B_1 i.m. once daily for one month, then three times a week. In order to suppress aggressive tendencies in patients while they were receiving the male sex hormone, 0.1 to 0.5 gm. of $CaBr_2$ was injected i.v. once a day. Forty-two cases are reported in which the cancer had recurred following operation and or irradiation and resisted any treatment; most of them were considered to be moribund. Dramatic improvement was seen to take place in all these cases when they were given male sex hormone as described above. A five year survival was seen in 20 out of 25 cases of carcinoma of the cervix, nine out of 10 cases of carcinoma corporis uteri, and one out of six cases of ovarian carcinoma. Even a case of carcinoma vulvae was seen to survive for one year.

My own experiences since 1944 confirm the palliative action noted by Tynecki associated with the administration of male sex hormone in cases of inoperable carcinoma of the female genitalia, and also in one case of extragenital carcinoma in a climacteric woman. The prepartion used by me was methyl testosterone which I give in a dosage of 5 mg. sublingually three times daily before meals until a marked improvement has taken place, then once a day for a variable, individualized length of time. Testosterone is resumed at any time that an aggravation of the condition is seen to occur, one to three times daily until signs of improvement have again taken place. In the mentioned case of extragenital carcinoma which had originated in the gallbladder and had metastasized to the third ventricle of the brain, the vertebral column and the bones of the lower extremities, and in which the patient was considered to be moribund before the treatment was begun, while no regression of the tumors was seen to occur, the patient showed symptomatic improvement and remained alive for 11 years. More than five year survival has been seen by me in patients with carcinoma uteri which have been operated on and/or undergone irradiation treatment and in which signs of recurrence have just been noted to appear. Palliation was of shorter duration in my series of far advanced uterine carcinoma.

As already stated in an article published

by the author in 1934[2], blood transfusions appeared to be contraindicated in malignancies. Bleeding, by stimulating the regeneration of the red bone marrow, is useful in prolonging the life of cancer patients. Its combination with male sex hormone treatment appeared to give impressive results in a patient with a grade B-2 carcinoma of the cervix which was thought to be inoperable and was progressing unfavorably following irradiation treatment.

Report of a Case

According to the hospital record received from Dr. B. T. Harter of the Bristol, Va.-Tenn. Tumor Clinic, this 42 year old white woman was admitted to the Clinic on April 1, 1960. Her LMP began normally on 2-7-60 and then progressed to heavy vaginal bleeding daily until 3-30-60. She was taken to the Norton Hospital and given one blood transfusion. Since September, 1959, she had been having abdominal and pelvic pain, pressure up in the birth canal, pain between one hip bone and the other radiating towards the kidneys. Menarche had been at the age of 14 with an interval of 28 days and a duration of 8-10 days. She had a convulsion at the menarche, then once or twice a year until the summer of 1961. None have occurred since then. Thirteen years ago the interval decreased to 21 days and the duration decreased to 6-7 days. She gave birth to five children, of which only two are alive. One of her aunts died with leukemia, the other one with cancer of the skin. One brother has hypertension and idiopathic grand mal epilepsy, another brother is diabetic. The physical examination disclosed a nodular goiter, right more than left. The cervix was hypertrophied and showed a marked erosion. The diagnosis both presumptive and postoperative was epidermoid carcinoma of the cervix, stage II-B. Operation: D. and C., biopsy of the cervix and radium application #2. The radium applicator contained 50 mgs. of radium and was inserted at 2:25 P.M. on 5/11/60; it was removed at 8:20 A.M. on 5/13/60. She weighed 154 lbs. on admission. When seen again on 6/10/60 her weight was 164¾ lbs. She was weak, complained of pain in the RUQ, sometimes relieved by eating. Vaginal: many synechiae. The cervix was in the upper vagina, atropic and hemorrhagic; uterus—small, symmetrical, anterior. The parametrium was thickened on the right side. Rx: Tinct. Belladonna, gtts. XV tid and hs. On 7/11/60 she was examined again in the clinic and a left sided hemiparesis was found.

Copious vaginal bleeding continued and she had to stay in bed most of the time.

She was first seen by me on 7/11/60 and complained of excruciating pain in the right lower abdomen. At that time she was given aspirin with phenobarbital tablets which appeared to relieve the pain and these tablets have been used by her ever since. The report from the Tumor Clinic was received on 7/16/60. Because of continuing excruciating pain in the abdomen and pelvis and continuing copious bloody discharge from the vagina, extreme nausea and anorexia, she was given a month's supply of methyl testosterone tablets on 7/24/60 and directed to dissolve one 5 mg. tablet in the mouth three times a day before meals. This resulted in relief of both nausea and anorexia. Copious vaginal bleeding continued for months while she was taking the male sex hormone. On December 15, 1960, she wrote: "As long as I stay in bed it is not so bad. But I cannot stay in bed all the time. I cannot do much walking for it breaks loose and I bleed. It makes me so weak, I cannot stay up." She showed aggressive tendencies and had frequent spells of rage during this interval. As time went on the vaginal bleeding gradually subsided and she was able to come to the office sporadically. When last seen she weighed 226 lbs. and was taking the methyl testosterone tablets only when she felt worse. The radiation dermatosis gradually disappeared but pain in the bones of the lower extremities and pelvis persists. She gets relief with aspirin and

phenobarbital which she has to take regularly.

My experiences with male sex hormone in the treatment of carcinoma mammae have been less impressive than those reported by others. The original assumption made by me that if male sex hormone makes the mamma disappear, the carcinoma mammae will also disappear, has proved to be erroneous. While the mamma actually was seen to disappear, the carcinoma mammae continued to grow. When female sex hormone was tried in these cases the exitus lethalis was seen to be greatly accelerated.

To summarize I wish to state that, in my experience which dates back to 1944, male sex hormone when given in the dosages specified above appears to be very useful in the palliative treatment of carcinoma of the uterus. As shown in the reported case even better results can be obtained when, instead of blood transfusions, blood loss is allowed to occur.

I wish to thank Dr. B. T. Harter for letting me have a copy of the hospital record of the Bristol Tumor Clinic in connection with the case reported in this paper.

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Fort Blackmore, Virginia

What Price Measles Vaccine?

Another advance in the conquest of one of the diseases that plague mankind has been recorded by Eli Lilly & Co. A test of a Lilly vaccine against measles has been made public at a medical meeting in Philadelphia. It established that the vaccine was remarkably effective in a measles epidemic in that city last May. . . . Neither we nor the drug manufacturers themselves know what the price of the measles vaccine will be when it becomes available for general use. We know, however, that it can hardly reflect the true cost of the long experimentation and research which went into the product. Fortunately, Kefauver's sideshow committee hearings have as yet not deterred the drug manufacturers from their vital work. They continue in the vanguard of the fight against disease.—Editorial in Indianapolis (Ind.) *News,* March 22, 1962.

Public Health . . . .

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

Advisory Committee on Radiation Protection

An Advisory Committee on Radiation Protection has been functioning for over a year in the State of Virginia. The purpose of this group is to advise the State Health Commissioner on matters of radiation as they may affect the health of the people of Virginia.

Dr. William T. Ham, Jr., Chairman of the Department of Biophysics at the Medical College of Virginia, organized the committee and is its chairman. Members* are leading specialists in their respective scientific disciplines and all have backgrounds in a field of nuclear radiation.

The responsibilities of the State Health Department in regard to radiation protection for all citizens of Virginia fall into two categories; the control of everyday sources of ionizing radiation, and the problems arising from emergency situations, such as nuclear accidents or nuclear war.

The problem of control of everyday sources of radiation exposure is not acute. Standards and safeguards have been established and through a program of surveillance by the State Health Department's Bureau of Industrial Hygiene, the safety of the general public and those working near radiation sources is assured.

Particular attention is being paid to x-ray equipment since this is the greatest source of radiation hazard during peacetime. Surveys of x-ray equipment are continuously being made in city and county health departments in order to keep the x-ray and fluoroscopy equipment safe for patient use. Already these surveys have brought about the improvement of shielding, operating techniques and protection of personnel in many places.

In addition, the x-ray equipment of dentist and physicians is being surveyed upon request. This is being done through the Surpak program with the cooperation of the Virginia Dental Association and the United States Public Health Service. The results so far are proving highly favorable.

The State Health Department is also assisting the Atomic Energy Commission with the inspection of installation and materials that have been licensed for use in Virginia. This program includes making periodic checks on agencies that use beta density gauges to make sure that radioactive materials are not escaping their source. The problems of control have increased, however, with the availability of abundant radioactive materials, and an expanded program to assume responsibility for the control of these additional materials is being developed in the

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State as the Atomic Energy Commission transfers its regulatory authority to the states.

The Advisory Radiation Protection Committee recognizes that the greatest threat to the citizens of the State from radiation hazards lies in nuclear accidents or nuclear war. The dimensions of radiation protection problems in the event of a nuclear disaster would be immense. In such an event, the specific functions of the State Department of Health would be to provide emergency care and treatment for those injured, emergency care and treatment of non-casualty survivors, emergency public health services under disaster conditions, and preventive and remedial measures to minimize the effects of radiological exposure. Also, the health department would be responsible for maintaining a minimum of sanitary standards necessary to prevent mass outbreaks of disease.

One of the first acts of the Committee was to study the State's over-all civil defense plan as it relates to radiation protection. Wherever, in the Committee's opinion, inadequate plans existed for the minimizing of injury and protection against loss of life, subcommittees were appointed to study these specific areas. Today there are subcommittees on Radiation Protection for Communication Centers, Emergency Control Centers, Individual and Group Fallout Shelters, Instrumentation, and Liaison with Industry and Scientific Societies.

One of the first subcommittees appointed was assigned the problem of radiation protection for school children. They recognized the responsibilities of the State Health Department and the State Board of Education. Their investigations included: the probability of varying quantities of activity from fallout debris in various sections of the State; the additional cost for adequate protection in proposed buildings and for modification of existing buildings; the variations in the abilities of communities to pay such costs; the problem of transportation in rural and urban areas; care of the children such as feeding, sanitation, and effects of crowding in respect to communicable diseases; and the psychological problems resulting from the separation of families. This subcommittee recently completed its study and presented its findings and recommendations to the State Board of Education.

Summary

The Advisory Committee on Radiation Protection has examined the potential radiation hazards to the health of the people of Virginia and the activities of the State Health Department in the field of radiation protection. The capabilities and the resources available to cope with problems resulting from nuclear attack are deficient. Subcommittees have been appointed to study specific problems and to develop recommendations for their solution. The Committee urgently recommends that each individual, family, and community acquaint themselves with the responsibilities they must assume for protection in the event of a nuclear disaster.

Monthly Report of Bureau of Communicable Disease Control

	Oct. 1962	Oct. 1961	Jan.-Oct. 1962	Jan.-Oct. 1961
Brucellosis	1	1	13	17
Diphtheria	1	0	12	11
Hepatitis	50	139	1034	1280
Measles	43	47	9309	11747
Meningococcal Infections	6	2	59	38
Aseptic Meningitis	3	21	42	76
Poliomyelitis	1	2	9	10
Rabies (In Animals)	5	6	120	176
Rocky Mt. Spotted Fever	1	1	45	48
Streptococcal Infections	375	327	10362	5334
Tularemia	0	1	13	17
Typhoid Fever	0	4	15	20

Mental Health . . . .

JAMES B. FUNKHOUSER, M.D.
EDNA M. LANTZ

A Glimmer of Statistical Encouragement

It has been acknowledged for many years that preventive psychiatry in the form of community based mental hygiene clinics reduced the number of the first admissions to State Mental Hospitals. As more clinics were established and more patients were seen in these clinics, the first admissions to our hospitals definitely declined. And as better treatment programs developed, it was possible to discharge an ever increasing number of patients from the hospitals who had formerly stayed in for long periods of time.

However, a large percentage (approximately 66%) of the patients who were released were unable to make a satisfactory adjustment in the community and returned to the hospital. A previously published study demonstrated two years ago that the return rate of patients discharged from Virginia's Mental Hospitals could be reduced sharply if an organized program existed to furnish them with drugs and other professional services on an outpatient basis.[1]

Accordingly, an effort was made to intensify our aftercare program. For example, the mental hygiene clinics throughout the Commonwealth were encouraged to see patients referred to them at the time of their discharge from the hospital. Additional personnel were added in certain areas and psychotropic drugs were made available for the medically indigent. In several instances local public health directors participated in this effort as well as the mental hygiene clinics operated by the Department of Mental Hygiene and Hospitals. A special project was set up for Northern Virginia.

As of July 31, 1962, statistics became available which made it possible to gauge our success or failure by the simple process of comparing two consecutive fiscal years or reporting periods. The total number of patients that left the hospital during the reporting period was known—also the number of patients that returned during the same period. By subtracting the latter number from the first, we obtained an actual or "effective" release number.

We wished to learn whether those political subdivisions in which we had concentrated the aftercare efforts had a more effective release rate than those in which the effort had not been so concentrated. In order to do this, we had to relate the release number to a given geographical or political unit of patients within the hospitals. The number of patients on "effective" release was therefore related to the number of patients in the hospital during the reporting period from each political unit. This gave us an "effective" release rate for each locality.

For example, in fiscal 1961, 740 patients from Richmond were released to return to Richmond. Three hundred and thirty-five were unable to remain in the community for one reason or another and were returned to the hospital. This gave an effective net release of 405 patients. There were in the hospital during this same period, from Richmond, a total of 1,231 patients. (Relating the patients on effective release to those still in the hospital indirectly relates to the admissions and discharges rate since the remaining patients are the product of these two factors.)

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Approved for publication by Commissioner, Department Mental Hygiene and Hospitals.

Richmond, therefore, had an "effective" release (or "stay out") rate of 33.4% in fiscal 1961 (405 divided by 1231). The same type of calculation in 1962 showed that the effective release rate had climbed to 41.9%.

The effective release rate was 29.0% for all the counties in 1961 but had climbed to 30.0% in 1962, a very slight but definite improvement. For all the cities the effective release rate was 36.2% in 1961 but had climbed to 40.3% in 1962. The effective release rate for the State was 31.8% in 1961 and 34.1% in 1962.

It had been expected that the effective release rate would be better and improve more in the cities than in the counties because most of the mental hygiene clinic activities and the organized aftercare programs are concentrated in the cities where trained personnel is available. Of course, other factors could be of importance in explaining the differential rate of improvement. Better socio-economic conditions and better public acceptance of discharged patients are examples.

In one instance, the City of Lynchburg, the effective release rate went from 23.1% to 37.0%. In this City the public health director had been very active in organizing the aftercare program for patients discharged from the mental hospitals. In Lynchburg all medically indigent trial visit patients properly referred from the hospital to the Department of Public Health may be furnished with drugs and general medical supervision by the public health nurses. Psychiatrists are available for consultation periodically if necessary.

We have not yet had an opportunity to analyze the figures from each city and county but we have been able to compare the four hospitals involved.

Effective Release Rates

	1961	*1962*	*Gain or Loss*
Central State Hospital	18.3%	23.5%	+5.2
Eastern State Hospital	54.4%	51.4%	—3.0
Southwestern State Hospital	41.4%	38.2%	—3.2
Western State Hospital	32.6%	35.4%	+2.8

It can be seen that Eastern State Hospital lost ground. Therefore it is suggested that even greater efforts should be made in the regions from which Eastern State Hospital derives its hospital population. Although Richmond had an improvement in its effective release rate, as described earlier, Norfolk City's effective release rate dropped from 36.0% to 33.3%. This probably accounted for Eastern State Hospital's drop of effective release. Accordingly, additional personnel has been added to the aftercare program in Norfolk.

Similarly, at Southwestern State Hospital, the effective release rate dropped. The Department has therefore organized a program in agreement with a local public health director to duplicate the Lynchburg plan.

Western State Hospital's effective release improved, possibly because the Northern Virginia Project, a study financed by the National Institute of Mental Health, which has been in progress there during this reporting period. This project consists of a staff of mental health professionals stationed in the Northern Virginia Area. Their assignment was to organize the community services already available in the area for more effective casework and treatment services for trial visit patients. The fact that the Northern Virginia Area as well as Lynchburg is within Western State Hospital's area undoubtedly has helped this hospital's rate to improve.

Central State Hospital improved from an effective release rate of 18.3% to 23.5%, probably as the result of the employment of additional social work and medical personnel to supervise the program and because of the willingness of regional mental hygiene clinics to see more cases referred to them from the hospital.

It will be noted that despite Eastern State Hospital's slight decline that they were already quite ahead of the other hospitals in the matter of effective release. This is possibly due to the fact that Eastern State Hospital has had for a number of years an organized

aftercare program consisting of the hospital staff holding weekly "aftercare" clinics in Newport News, Norfolk and Richmond. Eastern State Hospital's population is also much more urban in its composition than the others.

With only two years comparison these figures should not be interpreted as an established trend. However, this preliminary statistical look at the aftercare program does show modest improvement and indicates areas where greater effort should be expended.

REFERENCE

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Treatment of Diabetes

Because of its prevalence and chronicity, diabetes mellitus should be the continuing concern of all physicians, regardless of their type of practice. An essential part of treating the condition is teaching the patient how to live with it.

As in any educational program, a systematic approach should be used. Each physician should have certain specific objectives clearly in mind as he teaches his diabetic patients.

To aid him, the American Diabetes Association has prepared the following check list of nine basic elements of treatment, which constitutes a *minimum* program for diabetes management.

1. Diet
2. Urine testing
3. Action of insulin and other hypoglycemic agents
4. Technique of insulin injection and sites for it
5. Care of syringe and of insulin
6. Symptoms of hypoglycemia
7. Symptoms of uncontrolled diabetes
8. Care of the feet
9. What to do in case of acute complications

This guide is not only of value in the initial education of a new diabetic, but can also be most helpful to both patient and physician in the subsequent years of management.

The Medical Society of Virginia . . . .

Council

A meeting of the Council of The Medical Society of Virginia was called to order by Dr. Russell Buxton, President, at 1:00 P.M. on Thursday, September 20, 1962, at Society Headquarters. Attending were: Dr. Fletcher J. Wright, Jr., Dr. Guy W. Horsley, Dr. M. M. Pinckney, Dr. Harry J. Warthen, Dr. Mack I. Shanholtz, Dr. Paul Hogg, Dr. K. K. Wallace, Dr. Thomas W. Murrell, Jr., Dr. A. Tyree Finch, Dr. W. N. Thompson, Dr. Alexander McCausland, Dr. Dennis P. McCarty, Dr. James G. Willis, and Dr. Richard E. Palmer. Also attending were: Dr. J. A. White, 3rd Vice-President; Dr. Vincent W. Archer, Delegate to AMA; Dr. W. Linwood Ball, Delegate to AMA; Dr. Allen Barker, Delegate to AMA; Dr. Kinloch Nelson, Vice Speaker; Dr. George Cooper, Jr., Chairman, Committee on Radiation Hazards; Mr. John Duval, Attorney for the Society; and Mr. Richard M. Nelson, Field Representative of AMA. A special guest was Dr. Milton Davis, Secretary of the American Medical Political Action Committee, Dallas, Texas.

Dr. Buxton introduced Dr. Davis who explained the purpose of AMPAC and its method of operation. He stated that the primary objective of the Committee is the defeat of King-Anderson type legislation, and that its immediate objective is the election in 1962 of Congressmen who share medicine's viewpoints. AMPAC has much to recommend it—espepecially since it is not affiliated with any political party. It supports both Democrats and Republicans.

Dr. Davis went on to state that the family physician can be a tremendous factor in any political campaign, and is in an excellent position to provide AMPAC with badly needed facts and background information on various candidates. The Woman's Auxiliary was also cited as a powerful political action force.

AMPAC, while spearheading political action at the national level, depends upon state political action committees to keep it on target. Dr. Davis stressed the importance of state committees and expressed the hope that Virginia would soon have one in operation. Such a committee would provide an effective grass roots approach, while at the same time preserving the basic concept of state responsibility. The committee's main objective would be to get physicians and their wives politically active. The potential of the physician in politics has hardly begun to be realized. Brought out was the fact that, regardless of deliberate efforts to smear medicine, the image of the physician remains superb.

It was learned that state committees should function entirely separate from state medical societies—for legal reasons as well as others. Members of a state committee should be physicians who desire sound government. They should also be key men in their respective districts. The chairman particularly should be a highly qualified individual. Although The Medical Society of Virginia should have no official connection with the committee, it was suggested that it appoint the committee's first chairman and secretary in order to get things moving.

In discussing the relationship of state committees to AMPAC, Dr. Davis pointed out that the most effective membership drives stress membership in both organizations.

Mention was made of the fact that there are at least two local "healing arts" committees busy in Virginia at the present time. Dr. Davis emphasized that such committees should continue to do their jobs, and stated that they are usually organized for one specific task only—to elect a Congressman in a particular district. State committees should have broader interests and responsibilities.

In answer to a question as to whether Society officers should participate actively on such a committee, Dr. Davis stated that such matters of policy should be left entirely to the Society.

A motion was then introduced requesting that a state political action committee be organized in Virginia. It was duly seconded. An amendment was then offered designating to the Executive Committee of Council the responsibility for setting up the committee. The amendment was seconded and adopted. The original motion then carried.

There followed discussion concerning how quickly a political action committee should be organized and what methods should be pursued. It was then moved and seconded that during the 1962 Annual Meeting each Congressional District should submit the names of individuals for consideration when the political action committee is appointed. During the ensuing discussion there was general agreement that members of Council should assume the primary responsibility of obtaining the names of key individuals.

A substitute motion was then offered which would have the individual Councilors select individuals from their districts to serve as members of the political action committee and make their names known to the President and Executive Committee. The substitute motion was seconded and adopted.

There followed a discussion as to what the state political action committee might be called, and VAMPAC (Virginia Medical Political Action Committee) was suggested.

Dr. Cooper was then introduced for the purpose of discussing with Council the need of adequate legislation to regulate and control radiation hazards. Dr. Cooper described efforts of his committee to obtain the enactment of such legislation during the 1962 session of the Virginia General Assembly, and expressed disappointment that the efforts were unsuccessful. He reviewed the results of a survey conducted by the Department of Health in 1961 and it was learned that numerous danger points were uncovered. As the result of what appeared to be an obvious need, regulatory legislation was drawn and recommended to the House of Delegates in October, 1961. It was pointed out that the House had accepted the report of the Committee on Radiation Hazards and referred the proposed legislation to the Legislative Committee for consideration and necessary action. It was brought out that a special subcommittee had reviewed the legislation and had recommended that it not be supported during the 1962 session of the Assembly.

Dr. Cooper expressed the feeling that public health and safety cannot be subordinated and that Council should give serious consideration to directing the Legislative Committee to seek the enactment of adequate regulatory legislation when the General Assembly next meets in 1964. The opinion was expressed that most physicians would welcome inspection and would gladly cooperate in taking proper corrective action.

Dr. Shanholtz commented that the Atomic Energy Commission is leaving more and more responsibility to the various states and that this fact in itself requires adequate regulatory legislation. He assured Council that such legislation would in no way result in interference with the private practice of medicine. It was brought out that dentists over the State are cooperating with the Department of Health on a voluntary basis.

It was then moved and seconded that Council approve the recommendation of the Committee on Radiation Hazards that the Legislative Committee be instructed to work with the State Department of Health in formulating suitable regulatory legislation for consideration by the General Assembly in 1964. An amendment was then offered calling for members of the Society to voluntarily submit to inspection and comply with recommended corrective actions during the interim. The amendment was seconded and adopted. The original motion then carried.

During the ensuing discussion, Dr. Shanholtz was commended for the manner in which he works with The Medical Society of Virginia.

Next to be considered was the question as to whether "Current Currents", the news insert in The Virginia Medical Monthly, should be eliminated in the interests of economy. There was some question as to whether "News and Views" had made "Current Currents" unnecessary.

Dr. Warthen believed that "Current Currents" served a very real and worthwhile purpose, and mentioned that the news it contained was more timely by at least two weeks than other items appearing in the Monthly. This was attributed to its method of preparation and the fact that it is an insert. It was his hope that it would be continued.

A motion calling for the continuation of "Current Currents" was seconded and adopted.

Council then turned its attention to the community service award proposed by the A. H. Robins Company. Although Council had considered the award on previous occasions, recent developments seem to justify further consideration. It was learned that 16 state medical societies now make the award, and that Mexico and Canada are expected to soon follow suit. It was pointed out that, because of the excellent reception in other parts of the country, the Robins Company was particularly anxious for its home State of Virginia to regard it with favor.

It was then moved that The Medical Society of Virginia make the award for two years and that the results be reviewed and evaluated at the end of that time. It was further moved that the President appoint a committee composed of both physicians and distinguished lay business leaders to designate the recipients. The motion was seconded and adopted.

Next on the agenda was consideration of the question as to whether physicians can ethically consult professionally with osteopaths. It was brought out that AMA had given much study to this question over the years, and that the matter had been left pretty much to the individual states. It was pointed out that before any stand could be taken, it would be necessary to determine whether Virginia osteo-

paths are practicing what might be termed good medicine or whether any suggestion of cultism remains.

It was moved and seconded that the matter be tabled. The motion carried.

Council next considered a resolution recently adopted by the Virginia Society of Ophthalmology and Otolaryngology which supports the AMA in declaring that any voluntary association of a medical doctor with a chiropractor, naturopath or optometrist is unethical. The resolution calls for any violation to be reported to local and state medical societies and the AMA. *Following a discussion of what actually constituted "voluntary association", a motion to approve the resolution was adopted.*

The following resolution, submitted by the Virginia Society of Pathology, was then adopted:

WHEREAS: The House of Delegates of the American Medical Association has declared that the proper conduct of laboratory analyses is a medical professional responsibility and all specimens for such analyses should be referred to laboratories supervised by fully qualified and licensed physicians;

THEREFORE BE IT RESOLVED: That the Virginia Society for Pathology urges The Medical Society of Virginia to so apprise its members by endorsing said declaration by the American Medical Association and printing the full text of the resolution whereby said declaration was made in the Virginia Medical Monthly.

There followed a discussion of what role the Society should play in providing loan or scholarship programs for medical students. The new AMA loan program was described by Mr. Nelson, and it was learned that students can borrow up to $1,500 per year for a period not to exceed 7 years. Interest is deferred until the physician actually enters practice. Because of AMA backing, each $1.00 contributed actually buys up to $12.50 in loans. It was also learned that the Society's Committee on Medical Education had given considerable thought to the matter, and many of its members were of the opinion that one strong program at the national level might well be better than having several at the local level.

It was moved that Council recommend support of the student loan program at the national level and that the Committee on Medical Education further investigate the advisability of establishing a scholarship program within the State. The motion was seconded and adopted.

The possibility of a dues increase was discussed and Council learned that the Finance Committee will be meeting on October 5 for the purpose of reviewing the Society's financial condition and studying a proposed budget for the coming year.

Considered next was a proposal from the Eli Lilly Company that it contribute $300 each year to our Annual Meeting rather than provide an exhibit. Mentioned was the fact that Lilly apparently no longer desires to exhibit at annual meetings over the country. It believes that the returns no longer justify the investment of time and money. It was mentioned that other companies have expressed interest in the Lilly proposal and might well follow suit.

It was moved that the Society make known to the Eli Lilly Company its objection and regret of the proposal and that the $300 not be accepted. The motion was seconded and adopted.

Council was requested to establish some policy concerning Society participation in the sponsoring of hospitality suites at future meetings of AMA. The Society has joined with its Southeastern neighbors on two previous occasions. It was stated that a number of the Southeastern states now favor the hospitality suite at all sessions of AMA and that the annual cost per state is estimated at approximately $600.

It was moved and seconded that the matter be referred to the Finance Committee for consideration and such recommendations as it might care to offer. The motion carried.

The thought was expressed that if the Society sponsors future hospitality suites, adequate notice should be published in the Virginia Medical Monthly.

A question was raised concerning just what role The Medical Society of Virginia should play in the sponsoring of mass immunization clinics over the State. *Because of the rather clouded conditions that prevail at the present time, however, it was moved that the matter be tabled. The motion was seconded and adopted.*

Council considered a request for a special appropriation of $75 to purchase 50 books entitled "Standards and Recommendations for Hospital Care of Newborn Infants—Full Term and Premature." The books would be provided certain hospitals in the State as part of a special project of the Committee on Child Health. Dr. Hogg told of the excellent work being carried on by the Committee and also the Virginia Chapter of the American Academy of Pediatrics. He agreed to discuss the appropriation further with Committee members and to report back to Council should further action be required. *A motion to table was then adopted.*

There being no further business, the meeting was adjourned.

Council

A meeting of the Council of The Medical Society of Virginia was called to order by Dr. Russell Buxton, President, at 1:00 P.M. on Sunday, October 14, 1962, at the Sheraton Park Hotel in Washington. Attending were: Dr. Fletcher J. Wright, Jr., Dr. Guy W. Horsley, Dr. M. M. Pinckney, Dr. Harry J. Warthen, Dr. Mack I. Shanholtz, Dr. Paul Hogg, Dr. K. K. Wallace, Dr. Thomas W. Murrell, Jr., Dr. A. Tyree Finch, Dr. W. N. Thompson, Dr. Alexander McCausland, Dr. Dennis P. McCarty, Dr. James G. Willis, Dr. W. Fredric Delp and Dr. Richard E. Palmer.

Also attending were: Dr. J. A. White, 3rd Vice-President; Dr. Vincent W. Archer, Delegate to AMA; Dr. W. Linwood Ball, Delegate to AMA; Dr. Snowden C. Hall, Jr., President of Virginia Board of Medical Examiners; Dr. Russell M. Cox, Secretary-Treasurer of Virginia Board of Medical Examiners; and Mr. Richard M. Nelson, Field Representative of AMA.

Dr. Buxton opened the meeting by introducing Mrs. Lillie Rogers and Miss Mavis Haywood, representatives of the Virginia Association of Medical Assistants. Mrs. Rogers presented a brief history of the Association and, with Miss Haywood, described a one year training course for medical assistants which has been proposed to a State Study Commission on Vocational Education. In-service training programs have been offered at R.P.I. and the Norfolk Division of William and Mary, but courses are needed for the young girl just out of high school. Hope was expressed that the Society would designate a committee to work with the Medical Assistants Association in furthering educational opportunities.

Mrs. Rogers pointed out that the Virginia Medical Assistants Association works as closely as possible with The Medical Society of Virginia and its component societies, and stated that its By-Laws make it impossible to become a trade union or bargaining agency.

It was then moved and seconded that the Advisory Committee to Medical and Allied Organizations work with the Medical Assistants Association when and wherever possible. The motion carried.

Adopted also was a motion endorsing the proposed one year training course as proposed to the Study Commission on Vocational Education.

Several members expressed an interest in having their assistants become members of the Virginia Medical Assistants Association and it was suggested that those interested should write Miss Mavis Haywood, Chairman, Committee on Education, 114 North Mulberry Street, Richmond.

Dr. Hogg, Chairman of the Finance Committee, then presented the committee's report—including the proposed budget for 1962-63. Dr. Hogg pointed out that increased demands on the budget had caused the Society to show a deficit for the past year. Stepped-up legislative programs, unforeseen legal expenses, a further drop in advertising (Virginia Medical Monthly) and an increased work load were some of the reasons cited.

Dr. Hogg went on to state that the Society appeared to be faced with three alternatives. They were: (1) to continue to operate at a deficit for another one or two years; (2) to sharply curtail Society activities; and (3) to find an additional source of income. The committee recommended that regular $25 dues be increased to $35 and the other categories increased proportionately. Several members expressed the opinion that this might not be sufficient, that a basic increase of $15 might be best. It was brought out that the medical profession is faced with a long difficult battle in the years ahead and should be prepared for any eventuality.

A motion was then offered approving the proposed budget and recommending a basic increase of $15 in membership dues. The motion was seconded and adopted.

It was then moved that the Home Office staff be commended for their effective and economical management of Society affairs. The motion was seconded and carried.

Next on the agenda was consideration of what role the Society should play in National Diabetes Detection Week. Council had been requested to urge Society members to conduct the necessary tests at no charge during the week of November 11.

It was then moved and adopted that the Society officially recognize Diabetes Detection Week and invite the cooperation of all Virginia physicians. The Executive Secretary was requested to prepare a news release covering Council's action.

A letter from the Council on Medical Service of the American Medical Association was then brought to Council's attention. The letter called attention to the many contributions of Dr. Henry B. Mulholland, Charlottesville, and Dr. Ennion S. Williams, Richmond. It was requested that the following excerpt from the letter be made a part of the minutes:

"The Council recognizes that sometimes physicians serve on A.M.A. committees and devote a great deal of time to the profession while their confreres at the state association may not be aware of their work at the national level.

"We have previously written you about the work of Dr. Henry B. Mulholland of Charlottesville and the many duties he has performed for the Association. Dr. Mulholland continues to be a staunch worker and presently serves on the Committee on Aging. This group is active and enthusiastic and makes many demands on its members. In addition, Dr. Mulholland is a member of the Editorial Advisory Committee of the *Chronic Illness Newsletter.*

"Ennion S. Williams, M.D., of Richmond serves as a consultant to the Committee on Insurance and Prepayment Plans. In this capacity he has been called on for advice with regard to publications, planning for national congresses in prepaid health insurance, and for answers on technical problems.

"I know you are aware that A.M.A. councils and committees rely heavily on the gratuitous service given by men such as Drs. Mulholland and Williams. We hope that during your forthcoming annual meeting the Council's sincere appreciation for their contributions can be relayed to the officers and members of The Medical Society of Virginia."

A motion was introduced requesting that an appropriate committee be designated to devise a suitable certificate to be presented those members who have contributed greatly of their time and effort in the interest of the profession. The motion was seconded and adopted.

Considered next were possible dates and locations for the 1966 annual meeting. In order to obtain acceptable dates, it has become necessary to schedule meetings at least four years ahead. Since the next three meetings will be held in Roanoke, Norfolk and Richmond, the staff was requested to investigate Alexandria and Williamsburg as possible meeting sites. Its findings will be reported to Council during its midwinter session.

There followed considerable discussion concerning the position of the American Hospital Association with reference to health care for the aged. It was brought out that in January, 1962, the House of Delegates of AHA released a policy statement which said in part: ". . . We recognize that government assistance is necessary to effectively implement this national Blue Cross proposal in order to enable many retired aged persons to purchase this health protection through the voluntary prepayment system. Conditional upon the administration of this proposed plan by the voluntary nonprofit prepayment system, the tax source of the funds is of secondary importance to us. . . ."

Since it was the last sentence of the above statement which had caused principal concern, attention was called to an editorial in the October Virginia Medical Monthly written by Mr. John Stacey, Chairman of the Council on Public Relations and Education of the Virginia Hospital Association. Mr. Stacey, commenting upon the sentence in question, stated "The last sentence was interpreted to mean that the source of funds is of secondary importance to us provided the proposed plan is administered by the voluntary non-profit prepayment system and not by the Social Security Administration."

A motion was introduced which would again place The Medical Society of Virginia firmly on record as opposing any legislation which would provide health care for the aged through funds derived from social security taxation. The motion was seconded and adopted.

The thought was expressed that the Society's Advisory Committee to Medical and Allied Organizations should discuss the social security issue with representatives of the Virginia Hospital Association. *A motion was then offered which would have the President appoint a special ad hoc Committee on Hospitals until such time that the Constitution and By-Laws can be amended to provide for a standing committee. The motion was seconded and adopted.*

It was understood that the existing subcommittee on Hospital-Physician Relationships of the Medical Service Committee would be dissolved.

Further consideration was given a suggestion that Council and the House of Delegates schedule earlier meetings for their Sunday sessions during Annual Meetings. It was believed that a morning meeting for Council and a luncheon meeting for the House would eliminate the disadvantages associated with evening sessions lasting sometimes until 11:30 P.M. The time problem, particularly as it affects travel, was recognized, but it was the consensus that the proposal deserved a try.

It was moved that, for the 1963 Annual Meeting in Roanoke, Council meet at 10:00 A.M. on Sunday and that a luncheon meeting of the House follow at 1:00 P.M. The motion stipulated that the new

schedule would be on a trial basis only. The motion was seconded and adopted.

Another motion was adopted requesting the Local Committee on Arrangements to consider the hour of 3:00 P.M. rather than 4:00 P.M. for the second meeting of the House on Tuesday. The motion was seconded and adopted.

Council was advised of the great amount of help the Society had received from the American Medical Association during the campaign to defeat King-Anderson. *It was moved that the Executive Secretary be empowered to compose and transmit a suitable resolution of appreciation to AMA. The motion was seconded and adopted.*

Next on the agenda was a request from the Committee on Mental Health that Council study the problem posed by efforts of clinical psychologists to remove themselves from the supervision of physicians. It was learned that during the last session of the General Assembly legislation directed toward that end had been introduced. Brought out was the fact that the Society had previously opposed licensure of such groups and it was moved that this previous action be reaffirmed.

Following considerable discussion, a substitute motion was introduced which would have the Society oppose licensure of clinical psychologists and other similar paramedical personnel. The motion was seconded and adopted.

A related motion was adopted requesting the Committee on Mental Health to study the problem further—conferring with the Virginia Board of Medical Examiners if necessary. The motion further requested the Committee to report its findings and recommendations at the mid-winter meeting of Council. The motion was seconded and adopted.

Council and committee expenses were then discussed and it was learned that little consistency exists. Some Councilors submit expense accounts for interim meetings and others do not. It was agreed that there should be more uniformity and that the matter deserved special study. *A motion to refer the matter to the Finance Committee for its recommendations was adopted.*

A brochure for new mothers, being prepared under the direction of the Department of Health, was discussed by Dr. Shanholtz and Dr. Finch. The new brochure stresses the importance of birth certificates and provides the necessary application. It was also learned that the brochure would include an immunization schedule. Dr. Shanholtz was hopeful that The Medical Society of Virginia would want its name included on the brochure.

A motion endorsing the brochure was then introduced. It was seconded and adopted.

Dr. Buxton reported that plans were proceeding on schedule for the formation of the Virginia Medical Political Action Committee and that names of volunteers had been received from members of Council.

A motion to have the President write those Virginia members of Congress who supported medicine's stand on health care for the aged was withdrawn when it was learned that such letters had already been written.

The following resolution was then adopted:

WHEREAS: The Committee on Trauma of the American College of Surgeons has as one of its main objectives the improvement of the "Immediate Care" rendered victims of accidents and other emergencies by Ambulance and Rescue Squad personnel; and

WHEREAS: The Northern Virginia Committee on Trauma of the American College of Surgeons has been designated to institute a pilot program to perfect better application of methods for improved "Immediate Care"; and

WHEREAS: This pilot program is now underway in Northern Virginia and is meeting with marked success; and

WHEREAS: It is planned to extend this program to other areas of the State of Virginia;

THEREFORE BE IT RESOLVED: That The Medical Society of Virginia recognize the Northern Virginia Committee on Trauma for undertaking and implementing this program;

AND BE IT FURTHER RESOLVED: That The Medical Society of Virginia endorse the furtherance of the activities of the Virginia Committee on Trauma when this program is extended to other areas of the State of Virginia and actively support this program.

Council next endorsed the efforts of Governor Harrison to reduce Virginia's highway death toll. *It was moved that this program be approved in principle and that an appropriate resolution be composed. The motion was seconded and adopted.*

Dr. Hall and Dr. Cox reported on matters of interest involving the Virginia Board of Medical Examiners. In discussing the foreign graduate situation, Dr. Cox stated that of 794 examined from 1957-61, only 205 actually settled in Virginia. Most of these are practicing in Northern Virginia, Richmond and Charlottesville.

Council was alerted to the fact that an effort will undoubtedly be made again by certain closed panel

health plans to change Virginia law in order that they might operate in the State.

Dr. Buxton thanked members of Council for their cooperation during the year and then declared the meeting adjourned.

House of Delegates

First Session

The House of Delegates of The Medical Society of Virginia met in the Cotillion Room of the Sheraton Park Hotel, Washington, on Sunday, October 14, 1962, and was called to order at 8:00 P.M. by Dr. Russell Buxton, President.

Dr. Buxton introduced Dr. Fletcher J. Wright, Jr., Speaker, who requested a report from Dr. Richard Palmer, Chairman of the Credentials Committee. Dr. Palmer reported a quorum present.

The minutes of the October, 1961, meetings of the House were approved as published in the December, 1961, issue of the Virginia Medical Monthly.

Dr. Wright introduced Dr. J. Spencer Dryden, President of the Medical Society of the District of Columbia, who extended a cordial welcome on behalf of District physicians.

Also introduced were Dr. L. J. Pace, President of the West Virginia Medical Association, and Dr. Hugh Mahaffey, Vice-President of the Kentucky State Medical Association.

The Speaker then recognized Mrs. William F. Grigg, Jr., President of the Woman's Auxiliary to The Medical Society of Virginia. Mrs. Grigg reported on Auxiliary activities during the year, stressing particularly the many speeches made in support of Kerr-Mills as opposed to the social security approach to providing health care for the aged. The President-Elect of the Auxiliary, Mrs. A. B. Gravatt, Jr., was also introduced.

Visiting delegates from allied organizations were then presented to the House. Miss Mary Helen Foster from Suffolk represented the Virginia State Nurses Association; the Honorable W. Roy Smith, Petersburg, represented the Virginia Pharmaceutical Association; and Dr. J. G. Wall, Charlottesville, represented the Virginia State Dental Association. Accompanying Mr. Smith was his father, Mr. Blackwell Smith, also a member of the Pharmaceutical Association.

Dr. Buxton then delivered his presidential address. The address, which included recommendations based upon experience of the past year, will be published in the Virginia Medical Monthly.

The Speaker then introduced Dr. Milton Davis, Secretary-Treasurer of the American Medical Political Action Committee, Dallas, Texas. Dr. Davis traced the development of medical political action and listed the objectives of AMPAC. The immediate objectives are the defeat of King-Anderson type legislation and the election of a Congress which shares the point of view of medicine and other freedom loving people. Another objective is to stimulate physicians and their wives to work in the party of their choice.

Dr. Davis described the need of state medical political action committees and explained how AMPAC depends upon these committees to keep it headed in the right direction. AMPAC is a firm believer in state and local responsibility.

Following the talk of Dr. Davis, Dr. Buxton read the names of those physician volunteers who will help organize a Virginia Medical Political Action Committee.

The Speaker appointed temporary chairmen from the Congressional districts to meet with their respective delegations for the purpose of electing members of the Nominating Committee.

After a brief intermission, the Committee on Nominations was announced as follows:

First District:	Dr. F. A. Carmines
Second District:	Dr. Mallory Andrews
Third District:	Dr. John P. Lynch
Fourth District:	Dr. George Carroll
Fifth District:	Dr. F. H. McGovern
Sixth District:	Dr. George Hurt
Seventh District:	Dr. Boyd Payne
Eighth District:	Dr. Guy Hollifield
Ninth District:	Dr. Joseph Early
Tenth District:	Dr. John C. Watson

Dr. Wright outlined a proposed procedure for handling business of the House and a motion of approval was adopted.

Dr. Hogg, Chairman of the Finance Committee, presented his committee's report of operations during the year and offered a proposed budget for fiscal 1962-63. The budget had previously been reviewed by Council.

Dr. Hogg reported that the Society had operated at a deficit during the past twelve months and attributed this fact to stepped-up legislative programs, a further drop in advertising in the Virginia Medical Monthly and an increased work load.

It was the committee's opinion that the Society was faced with three alternatives. They were: (1)

To continue to operate at a deficit for another one or two years; (2) Curtail many of the Society's present activities; or (3) find a new source of income. The House was advised that Council had recommended a basic increase of $15.

It was then moved that the following budget, as recommended by Council, be approved. The motion was seconded and adopted.

Executive Office:

Salaries	$ 34,890.00
Telephone & Telegrams	1,400.00
Postage	3,000.00
Stationery & Supplies	1,500.00
Office Equipment—Repairs & Replacement	625.00
Building Maintenance & Repairs	6,000.00
Convention Expenses	1,000.00
Council & Committee Expenses	2,000.00
Delegates to AMA	2,000.00
Executive Assistant—Travel	250.00
President's Expenses	1,000.00
Travel Expenses	2,000.00
Virginia Medical Monthly	38,000.00
Scientific Exhibits	2,500.00
Legal Expenses	3,000.00
Walter Reed Commission	500.00
Woman's Auxiliary	100.00
Membership Dues—Affiliated Organizations	200.00
Editor—Virginia Medical Monthly	600.00

Special Appropriations:

Virginia Council on Health & Medical Care	3,000.00
A.M.E.R.F.	2,000.00
AMA Student Loan Program	1,000.00
National Society Medical Research	150.00
Rural Health	500.00
Other Special Appropriations	600.00
News and Views	5,000.00
Employee's Retirement Fund	4,300.00
Social Security Taxes	750.00
Miscellaneous	600.00

Public Relations:

Conference Expenses	1,000.00
Radio and Press	100.00
Literature and Bulletins	150.00
Miscellaneous	300.00
TOTAL EXPENSES	$120,015.00

The thought was expressed that the recommended dues increase should be referred to a Reference Committee and a motion to that effect was adopted.

Dr. Wright next reported those actions taken by Council during its meeting earlier in the afternoon. Complete minutes of the Council meeting can be found in this issue.

The following committee reports, published in the September, 1962, issue of the Virginia Medical Monthly, were accepted: The Executive Secretary-Treasurer; AMA Delegates; Publication; Mediation; Ethics; Public Relations; Legislation; Medical Service; Walter Reed Commission; Rehabilitation; Radiation Hazards (see Council minutes of September 20 for further details); Aging and Chronically Ill; Medical and Allied Organizations; National Emergency Medical Service; Nurse Examiners & Organized Nursing; Traffic Safety; National Legislation; Medicare Advisory; Mental Health; Insurance; Conservation of Hearing; Medical Education; Liaison to State Bar; Advisory to Department of Welfare; House; and Principles and Policies.

The following reports, distributed prior to meeting, were also accepted: Tuberculosis; Alcoholism; and Maternal Health.

The report of the Judicial Committee, containing proposed amendments to the By-Laws, was considered and referred to a Reference Committee.

The report of the Membership Committee was accepted and its recommendation that Dr. Russell Buxton be made an Honorary Active Member of the Society was accorded a standing vote of approval.

The report of Blue Shield Directors was received and two of its recommendations referred to a Reference Committee. These recommendations reaffirmed Section 5 of the Society's Statement of Principles and endorsed in principle the National Blue Shield Relative Value Schedule.

A supplemental report by Dr. Mapp, Chaiman of the Committee on Nurse Examiners & Organized Nursing, was referred to a Reference Committee.

Also referred to a Reference Committee was a supplemental report presented by Dr. John R. Saunders, Chairman of the Committee on Mental Health.

A supplemental report of the Liaison Committee to the State Bar, which included a resolution from the Roanoke Academy of Medicine, was presented and referred to a Reference Committee.

A resolution on medical care for the aged, sponsored by the Lynchburg Academy of Medicine, was referred to a Reference Committee.

A resolution which would have the Society endorse a recommendation by the Southwestern Virginia Medical Society, to the effect that patients be permitted to select qualified physicians of their choice in all compensation cases, was also referred to a Reference Committee.

Dr. Allen Barker then introduced a resolution nominating Dr. Alexander McCausland as recipient of the President's Award to the physician who has done most during the year to further employment

of the physically handicapped. *A motion to accept the resolution without referral was seconded and adopted unanimously.*

A resolution by Dr. George Hurt which would have a suitably inscribed gavel presented each retiring President was referred to a Reference Committee.

The names of those members who had died since the last Annual Meeting were then read and a moment of silence observed.

There being no further business, the meeting was adjourned.

Second Session

The second session of the House of Delegates was called to order by Dr. Fletcher J. Wright, Jr., Speaker, at 4:00 P.M. on Tuesday, October 16, 1962, in the Cotillion Room of the Sheraton Park Hotel, Washington.

A quorum was reported by Dr. W. N. Thompson, member of the Credentials Committee.

First on the agenda was the report of Reference Committee #1, presented by the Speaker. The committee recommended adoption of a proposed amendment to the By-Laws which would increase membership dues. After some discussion, a motion was adopted increasing the dues for active members in practice more than 5 years from $25 to $40—for those in practice 5 years or less from $15 to $25 and the dues of associate members from $7 to $10. Article II, Section 1, of the By-Laws now reads as follows:

> "There shall be an annual assessment for each calendar year of $40.00 upon each active member who has been licensed to practice more than five years, payable in one or more installments before December 31st of that year. Those who have been licensed to practice for five or less years shall be assessed $25.00 for each calendar year. Dues for associate members shall be $10.00 for each calendar year. Dues shall be prorated on a monthly basis for those joining during the year. No dues are required of courtesy members."

The House then approved the committee's recommendation that the following resolution, introduced by Dr. George Hurt, be adopted:

Resolved: That a gavel suitably inscribed be presented to each retiring President, including the present President.

In considering the Lynchburg Academy of Medicine resolution on medical care for the aged, the committee recommended that, in lieu of proposal No. 1, the House request the Liaison Committee to the Department of Welfare to make a strong and continuing effort to bring about the earliest possible implementation of the Kerr-Mills Law in Virginia. The recommendation was adopted.

In lieu of proposal No. 2, included in the same resolution, the committee called attention of the House to a recent survey of nursing homes conducted by the Department of Health. It was also learned that the Department of Health has favored, as a matter of policy, the development of proprietary nursing homes as a means of meeting the problem. No formal action was taken.

The committee recommended that the resolution's 3rd proposal be approved as follows:

> "That The Medical Society of Virginia encourage the provision, by private insurance carriers within the State of Virginia, of adequate Senior Citizen policy coverage for hospital and medical care, and investigate the State subsidization of such coverage as recently introduced in the State of Texas."

Next considered was a committee recommendation that the proposed amendment to Article III, Section 2, of the By-Laws be changed by rewriting the third sentence as follows:

> "Should it seem desirable that a city or county —or a component society in one or more political subdivisions—in a Congressional District unite with a city or county—or a component society in one or more political subdivisions in an adjoining Congressional District—as a single component society, such action may be taken provided it be sanctioned by the Councilor from each of such districts."

The proposed amendment, as reworded, was then adopted.

The proposed amendment to Article III, Section 7, as set forth in the report of the Judicial Committee, was then adopted.

The purpose of these amendments is to make it possible for two component medical societies to exist in the same political subdivision. The amendments were requested as a result of mergers now being contemplated over the State.

The Reference Committee also recommended that Article V, Section 7, be amended as proposed in the report of the Judicial Committee. The recommendation was adopted. This amendment clarifies the procedure for electing delegates and alternates of the House of Delegates of the American Medical Association.

Dr. Wright requested Dr. Kinloch Nelson, Vice-Speaker and Chairman of Reference Committee #2, to present the report of that committee.

It was the committee's recommendation that the House go on record reaffirming Section 5 of the Society's Statement of Principles which reads: "Fees for services in the fields of anesthesiology, radiology and pathology should be included in Blue Shield contracts rather than under Blue Cross coverage." The recommendation was adopted.

The committee further recommended that the National Blue Shield Relative Value Schedule be endorsed in principle. This recommendation was also adopted.

In considering the supplemental report of the Liaison Committee to Nurse Examiners and Organized Nursing, the House adopted a recommendation that the following two proposals be approved as submitted:

"1. That in view of the need for a more productive recruitment program for student nurses in Virginia, that Virginia physicians help by encouraging well qualified high school students to enter nursing as a vocation.

2. That The Medical Society of Virginia contribute $300 in the next fiscal year for the preparation of a new brochure for the attraction of student nurses into the field, we having participated in this program previously with the Virginia League for Nursing and other nursing groups."

The House then concurred with the committee recommendation that it table a proposal that it endorse the accreditation of nursing homes by a national accrediting group as being a desirable objective.

Another proposal by the committee on nursing was adopted as recommended. It reads:

"That where Virginia physicians find themselves able to do so, that they attempt to gain support for the Kerr-Mills method of providing medical care for the aged in nursing groups, as opposed to that suggested by King-Anderson."

The Reference Committee recommended that the following proposal be amended by substituting the word "urge" for the words "see to it." The House concurred and adopted the proposal to read as follows:

"That Virginia physicians urge that the implications for nurses as regards closed chest cardiac resuscitation be clearly outlined to them in their respective institutions by the medical staffs in line with the recommendation of the American Heart Association."

Recommended for adoption was the supplemental report of the Committees on Mental Health which called for the House of Delegates to support all positive steps to activate a program on mental health developed by the American Medical Association, and to cooperate with related legal, religious, professional and lay organizations with that objective in mind. The recommendation was adopted.

Dr. Nelson reported that the committee had carefully studied the supplemental report of the Liaison Committee to the State Bar, which included a resolution sponsored by the Roanoke Academy of Medicine. The House approved the committee's recommendation that the report be approved, with the resolution amended to read as follows:

WHEREAS: We of the Roanoke Academy of Medicine are convinced of the need for improving the public relations of the medical profession in general; and

WHEREAS: We are convinced of the soundness in the approach to this phase of the problem through the existence of the respective Liaison Committee of The Medical Society of Virginia and the Virginia State Bar; and

WHEREAS: We are further convinced that not only is justice more insured, but the interest of practicing physicians less jeopardized when problems concerning malpractice are considered by a panel of professional men cognizant of the problem involved, and we are convinced that such a system will result in less material loss to the underwriters of malpractice insurance through such suit in the long run;

BE IT RESOLVED: That The Medical Society of Virginia take all possible action within the profession, and with insurance carriers, to increase utilization of the Joint-Screening-Panel.

Also adopted, as recommended by the committee, was a recommendation that the proposal of the Southwestern Virginia Medical Society concerning free choice of physicians in compensation cases, be re-referred to the Committee on Medical Service for further study.

Dr. Mallory Andrews, Chairman, then presented the report of the Committee on Nominations. The following nominees were elected:

President-Elect: Dr. Richard E. Palmer
1st Vice-President: Dr. James M. Moss
2nd Vice-President: Dr. Snowden Hall, Jr.
3rd Vice-President: Dr. Thomas Edwards

Executive Secretary-Treasurer: Robert I. Howard
Speaker of the House: Dr. Kinloch Nelson
Vice-Speaker: Dr. W. Callier Salley

The following Councilors were elected:

2nd District: Dr. K. K. Wallace
4th District: Dr. A. Tyree Finch
6th District: Dr. Alexander McCausland
8th District: Dr. James G. Willis
9th District: Dr. Carl E. Starke
10th District: Dr. Michael A. Puzak

The House was advised that the term of Dr. W. Vincent Archer as Delegate to the American Medical Association expires on December 31st. Dr. Archer's name was immediately placed in nomination and he was elected for another two year term, beginning January 1, 1963. His alternate, Dr. John T. T. Hundley, was also re-elected.

Nominations to be submitted to the Governor for appointment to the State Board of Medical Examiners were announced as follows:

1st District: Dr. J. E. Gladstone
Dr. Raymond S. Brown
Dr. O. W. Ward, Jr.

2nd District: Dr. Russell M. Cox
Dr. Neil Callahan
Dr. W. A. Brown

10th District: Dr. Harry C. Bates
Dr. C. Barrie Cook
Dr. Preston Titus

The House then adopted the following resolution by standing vote:

WHEREAS: Dr. James M. Moss is Co-Chairman of this Second Interstate Scientific Assembly of The Medical Society of Virginia and of the Medical Society of the District of Columbia; and

WHEREAS: Mrs. James M. Moss is the President-Elect of the Woman's Auxiliary to The Medical Society of Virginia; and

WHEREAS: We know Dr. and Mrs. Moss as a team dedicated to elevating the standards, the art and science of medicine; and

WHEREAS: During the course of this Second Interstate Scientific Assembly Dr. and Mrs. Moss suffered the loss of their son, Frederick Aubrey Moss; BE IT THEREFORE RESOLVED: That the officers and members of the House of Delegates of The Medical Society of Virginia join in prayer and share the deep grief felt by Dr. and Mrs. Moss and, further, that we extend our deepest heartfelt sympathy at this time of their bereavement and, further, that a copy of this resolution shall be delivered to Dr. and Mrs. Moss and a copy of this resolution will forever be embossed in the minutes of this date of the House of Delegates of The Medical Society of Virginia.

Dr. Starke received permission to introduce the following resolution which was approved unanimously.

BE IT RESOLVED: That this House of Delegates enthusiastically commend the Joint Committee on Arrangements of The Medical Society of Virginia and the Medical Society of the District of Columbia for the outstanding job it has done in connection with the Second Interstate Scientific Assembly; and

BE IT FURTHER RESOLVED: That the staff of the Sheraton Park Hotel be likewise commended for its cooperation in making this meeting a most successful and enjoyable one.

Dr. Buxton presided at the installation of Dr. Wright as President and presented him the gavel as a symbol of his new office.

The first official act of Dr. Wright was to present Dr. Buxton with a certificate of appreciation from the Society.

There being no further business, the meeting was adjourned.

ROBERT I. HOWARD
Executive Secretary

Approved:
RUSSELL BUXTON, M.D., *President*

Fifty Year Members—1962

Jeter Roy Allen, M.D.
Luther Hepburn Apperson, M.D.
William Otis Bailey, M.D.
Samuel Beverly Cary, M.D.
Early Beauregard Dovell, M.D.
Charles Watts Haden, M.D.
William Walter Hargrave, M.D.
Raymond Cottrell Hooker, M.D.
Henry Augustine Latane, M.D.
Augustine Warner Lewis, Sr., M.D.
Herbert A. Porter, M.D.
Charles Carroll Smith, M.D.

Members Whose Deaths Have Been Reported Since 1961 Annual Meeting

Frank Longstaff Apperly, M.D., Richmond
Clift Palsgrove Berger, M.D., McLean
Fred Murchison Hodges, M.D., Richmond
William Floyd Olinger, M.D., Gate City
Elmer Norman Shockley, M.D., Bassett
James Peery Williams, M.D., Richlands
Harvey B. Haag, M.D., Richmond
Edward Howe Miller, M.D., Danville
Henry Cannon Spalding, M.D., Richmond
Henry Adolphus Wiseman, M.D., Danville
James Harry Bocock, M.D., South Norfolk
Virgil Orion Choate, M.D., Galax
Harold Fee Corson, M.D., Arlington

Nicholas George Wilson, M.D., Norfolk
Joseph Hamilton Smith, M.D., Farmville
Lewis Tilghman Stoneburner, Jr., M.D., Richmond
Walter Edward Vest, M.D., Huntington, W. Va.
Clavel Tyrus Wilfong, M.D., Richmond
Faith Janet Fairfield Gordon, M.D., Richmond
Samuel Edwin Hughes, M.D., Holden, Massachusetts
William Alfred Mitchell, M.D., Newport News
Archibald P. Osborne, M.D., Berryville
David Patteson Scott, M.D., Lynchburg
Joseph Sidney Bachman, M.D., Bristol, Tennessee
Herman David Stevens, M.D., Newport News
Jerome Nathaniel Baum, M.D., Alexandria
Hugh Ross Fraser, M.D., Smithfield
Lee Spottswood Liggan, M.D., Irvington
Herbert Rogers Etheridge, M.D., Norfolk
William B. Greene, M.D., Petersburg
William Robert Parks, M.D., Roanoke
Mary Harley, M.D., Charlottesville
Lawrence Paul Jones, M.D., Emporia
Russell Watson Roberts, M.D., Charlottesville
Walter Gordon Trow, M.D., Warrenton
Frederick Thomas Amiss, M.D., Luray
Gerald C. Parker, M.D., New York, New York
Edmond Lafayette Sikes, M.D., Pound
Kenneth Bradford, M.D., Staunton
William Hartley Craig, M.D., Richmond
Ben James Montgomery, M.D., South Hill

Auditor's Report

OFFICERS AND COUNCILORS
THE MEDICAL SOCIETY OF VIRGINIA
RICHMOND, VIRGINIA

GENTLEMEN:

We have made an examination of the books and records of THE MEDICAL SOCIETY OF VIRGINIA, RICHMOND, VIRGINIA, for the fiscal year ended September 30, 1962, and have prepared therefrom the Balance Sheet, Exhibit "A", Statement of Surplus, Exhibit "B", and Statement of Income and Expenses, Exhibit "C". With the exceptions noted in the immediately following paragraph, our examination was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

We did not verify the accounts receivable by direct correspondence with the debtors, nor did we verify the accounts payable. It will be noted from the balance sheet that the amounts of these items are not material in relation to the financial position as a whole.

It is our opinion that the Balance Sheet, Exhibit "A", presents fairly the financial position of the Society at September 30, 1962, in accordance with generally accepted principles of accounting. The Statement of Income and Expenses, Exhibit "C", is prepared on a basis of cash actually received and disbursed.

Yours very truly,

MITCHELL, WIGGINS & COMPANY
By CHARLES W. ANDERSON
Certified Public Accountant

BALANCE SHEET

September 30, 1962

ASSETS

GENERAL FUND:		
Cash in banks		$ 65,148.69
Accounts receivable:		
Dues from members—Estimated collectible value—1961 dues—50@$25.00	$ 1,250.00	
Advertising—Virginia Medical Monthly	3,802.97	5,052.97
Investments:		
United States Savings Bonds—Present value (Schedule 1)		22,309.50
		$ 92,511.16
PLANT FUND:		
Land and buildings—At cost (Schedule 2)		$ 112,073.67
Furniture and equipment: (Schedule 2)		
Estimated value—October 1, 1950	$ 5,353.11	
Cost of acquisition since October 1, 1950	7,701.30	13,054.41
		$ 125,128.08

EXHIBIT "A"

LIABILITIES AND SURPLUS

GENERAL FUND:		
Accounts payable:		
Preparation of Medical Journal—September, 1962		$ 3,300.00
Surplus:		
Available for appropriation:		
Balance—September 30, 1962 (Exhibit "B")		89,211.16
		$ 92,511.16
PLANT FUND:		
Surplus invested in plant assets—(Exhibit "B")		$125,128.08
		$125,128.08

STATEMENT OF SURPLUS

For the Fiscal Year Ended September 30, 1962

EXHIBIT "B"

GENERAL FUND:		
Balance—October 1, 1961		$105,325.58
Add:		
Increase in bond interest adjustment		579.50
Total		$105,905.08
Deduct:		
Excess of expenses over income (Exhibit "C")	$16,051.98	
Decrease in accounts receivable	641.94	16,693.92
Balance—September 30, 1962 (Exhibit "A")		$ 89,211.16
PLANT FUND:		
Balance—October 1, 1961		$125,128.08
Changes		None
Balance—September 30, 1962 (Exhibit "A")		$125,128.08

STATEMENT OF INCOME AND EXPENSES

For the Fiscal Year Ended September 30, 1962

EXHIBIT "C"

		Actual	*Budget*
GROSS INCOME:			
Membership dues		$ 63,734.75	
Interest on investments		1,550.62	
American Medical Association		625.67	
Miscellaneous		192.86	
Virginia Medical Monthly:			
Advertising	$30,771.29		
Subscriptions—Nonmembers	335.57	31,106.86	
Total		$ 97,210.76	
EXPENSES:			
Executive office:			
Salaries		$ 30,459.06	$ 30,476.00
Telephone and telegrams		1,272.47	1,500.00
Postage		1,146.49	2,000.00
Stationery and supplies		1,472.80	1,350.00
Office equipment—Repairs and replacements		960.99	750.00
Building maintenance and repairs—Net		5,913.85	6,000.00
Convention expense		5,604.90	2,000.00
Council and committee expense		1,915.08	2,000.00
Delegates to American Medical Association		1,723.06	1,500.00
Executive assistant—Travel		186.92	250.00
President's expense		65.97	1,000.00
Travel expense		1,455.09	1,300.00
Preparation and distribution of medical journal		33,881.89	40,000.00
Scientific exhibits		2,767.00	2,500.00
Legal expenses		7,868.50	3,500.00
Walter Reed Commission		162.80	500.00
Woman's Auxiliary		43.50	100.00
Membership dues—Affiliated agencies		150.00	200.00
Editor—Virginia Medical Monthly		600.00	600.00
Special appropriations:			
Virginia Council Health and Medical Care		3,000.00	3,000.00
American Medical Education Foundation		2,000.00	2,000.00
National Society Medical Research		250.00	250.00
Rural Health		500.00	500.00
Other special appropriations		501.41	501.41
News and views		3,786.43	7,500.00
Reprints—Civil War Centennial Issue		348.67	500.00
Employees' retirement fund		3,964.85	3,900.00
Social security taxes		622.88	600.00
Miscellaneous		495.44	600.00
Total—Executive Office		$113,120.05	$116,877.41
Public relations department:			
Conference expenses		$ 82.69	$ 1,000.00
Radio and press		.....	100.00
Literature and bulletins		60.00	150.00
Miscellaneous		.....	300.00
Total—Public Relations Department		$ 142.69	$ 1,550.00
TOTAL EXPENSES		$113,262.74	$118,427.41
EXCESS OF OPERATING EXPENSES OVER OPERATING INCOME (Exhibit "B")		$ 16,051.98	

FINANCIAL CONDITION

The financial condition of the Society at September 30, 1962, is shown in the Balance Sheet, Exhibit "A", on the accrual basis. A comparative summary of the financial condition at September 30, 1962 and the two preceding years is presented as follows:

	September 30,		
	1962	1961	1960
Assets:			
Cash	$ 65,148.69	$ 81,200.67	$ 82,240.41
Accounts receivable	5,052.97	5,694.91	6,700.19
Investments	22,309.50	21,730.00	21,031.50
Land, buildings and equipment	125,128.08	125,128.08	125,128.08
Totals—All Funds	$217,639.24	$233,753.66	$235,100.18
Liabilities, Surplus and Fund Balance:			
Liabilities:			
Accounts payable	$ 3,300.00	$ 3,300.00	$ 3,187.86
Surplus:			
General fund	89,211.16	105,325.58	106,784.24
Fund balance:			
Plant fund	125,128.08	125,128.08	125,128.08
Totals—All funds	$217,639.24	$233,753.66	$235,100.18

Analyses and explanations of the more important balance sheet accounts follow:

Cash—$65,148.69

Recorded cash receipts were accounted for by deposits in the banks and disbursements were supported by properly signed and endorsed cancelled checks. The balances on deposit at September 30, 1962, were verified by direct correspondence with the banks as follows:

First and Merchants National Bank—Checking account	$13,820.78
Bank of Virginia—Savings account	9,238.85
Southern Bank and Trust Company—Savings account	1,283.45
Franklin Federal Savings and Loan Association—Savings account	12,743.63
Richmond Federal Savings and Loan Association—Savings account	28,061.98
Total	$65,148.69

Investments—$22,309.50

United States Savings Bonds, as shown in Schedule 1, were verified by inspection of the securities held in a safe deposit box at First and Merchants National Bank, Richmond, Virginia. They are shown in the balance sheet at their current redemption value.

Plant Fund Assets—$125,128.08

Details of the plant fund assets are shown in Schedule 2. No indebtedness against these assets was disclosed by the books.

Operations

The income and expenses for the fiscal year ended September 30, 1962, are shown in Exhibit "C", prepared on the cash receipts and disbursements basis. A summary of income, expenses and capital outlays for the current year are compared with that of the two preceding years as follows:

	Fiscal Year Ended September 30,		
	1962	1961	1960
Income:			
Membership dues	$ 63,734.75	$ 62,263.75	$ 61,658.07
Medical monthly publication	31,106.86	36,247.35	47,696.03
Other operating income	2,369.15	1,793.19	1,926.43
Totals	$ 97,210.76	$100,304.29	$ 111,280.53
Expenses:			
Executive office	$113,120.05	$100,333.58	$ 94,918.59
Public relations department	142.69	1,010.45	898.34
Totals	$113,262.74	$101,344.03	$ 95,816.93
Operating income over (under) expenses	($ 16,051.98)	($ 1,039.74)	$ 15,463.60

PLANT FUND ASSETS

September 30, 1962 — Schedule 2

LAND AND BUILDINGS—At Cost:		
4205 Dover Road, Windsor Farms, Richmond, Va.:		
Land	$22,706.58	
Office building	86,161.68	
Furnishings and decorations	2,205.41	$111,073.67
Walter Reed House, Belroi, Va.		1,000.00
Total land and buildings		$112,073.67
OFFICE FURNITURE AND EQUIPMENT:		
Estimated insurable value at October 1, 1950		$ 5,353.11
Purchased subsequent to October 1, 1950:		
Cost during fiscal year ended September 30, 1951	$ 951.65	
Cost during fiscal year ended September 30, 1959	6,749.65	7,701.30
Total office furniture and equipment		$ 13,054.41
Total plant fund assets (Exhibit "A")		$125,128.08

IN GENERAL

The bookkeeping records were found to have been kept in a satisfactory manner.

Insurance in force at September 30, 1962, determined from policies on file, was as listed below:

FIRE AND EXTENDED COVERAGE:	
Building—Windsor Farms, Richmond, Va.—80% Coinsurance	$ 69,000.00
Office furniture and fixtures—80% Coinsurance	15,000.00
Walter Reed House, Belroi, Va.	2,000.00
LIABILITY—OWNER'S, LANDLORD'S AND TENANT'S	
Bodily injury	$ 50,000.00-$100,000.00
Property damage	5,000.00
AUTO LIABILITY—NONOWNERSHIP:	
Bodily injury	$100,000.00-$300,000.00
Property damage	20,000.00
EMPLOYEE HONESTY BONDS:	
Executive Secretary—Treasurer	5,000.00
Secretary	5,000.00
ALL RISK—CAMERA FLOATER	200.00

INVESTMENT BONDS

September 30, 1962 — Schedule 1

BONDS	*Series*	*No. Bonds*	*Dated*	*Due*	*Value at Maturity*	*Cost*	*Value at 9-30-61*	*Value at 9-30-62*
U. S. Savings	F	6	10-1-49	10-1-61	$ 3,000.00	$ 2,220.00	$ 3,000.00	$ 3,000.00
U. S. Savings	J	13	5-1-55	5-1-67	6,500.00	4,680.00	5,356.00	5,525.00
U. S. Savings	J	11	12-1-55	12-1-67	11,000.00	7,920.00	8,932.00	9,207.00
U. S. Savings	J	1	12-1-55	12-1-67	500.00	360.00	406.00	418.50
U. S. Savings	J	1	1-1-56	1-1-68	1,000.00	720.00	812.00	837.00
U. S. Savings	J	2	2-1-56	2-1-68	2,000.00	1,440.00	1,624.00	1,674.00
U. S. Savings	J	2	7-1-56	7-1-68	2,000.00	1,440.00	1,600.00	1,648.00
Total					$26,000.00	$18,780.00	$21,730.00	$22,309.50

(Exhibit "A")

Editorial . . . .

In Defense of the Navel

MANY YEARS AGO, when theological students were more fundamental in their beliefs than at the present time, one of these embryonic divines was operated upon in a Richmond hospital for the cure of an umbilical hernia. He enjoyed a happy convalescence until his incision was dressed and he chanced to look at his abdomen. To his horror he found that he no longer had an umbilicus and all that marked its former site was a simple transverse scar.

His indignation knew no bounds, he refused to be comforted and he charged the surgeon with robbing him of his birthright. He finally became quieter and more coherent. Questioning gradually disclosed the fear that when his earthly span had run its course and he appeared before the pearly gates, the lack of an umbilicus might cause Saint Peter to mistake him for Adam, who, he sensed, was not held in high esteem in local circles.

His misgivings were doubtless unwarranted although one cannot help wondering just what course Saint Peter might follow if he were confronted by a male who had lost not only his navel but also a generous segment of rib as the result of a thoracotomy. The evidence, though circumstantial, would nevertheless be overwhelmingly against the unlucky soul.

Other considerations make preservation of the umbilicus highly desirable. An abdomen without a navel is an abdomen without character. There is no focal point or center of interest. A bikini without an appropriately situated umbilicus is unthinkable. The admiring crowd that gathered around President Kennedy last summer as he emerged from a swim in the Pacific Ocean did not conceal the fact that our first citizen has an umbilicus of more than passing interest.

The navel is useful as well as decorative. In any examination of the abdomen or operation upon the midriff the umbilicus serves as a landmark or point of departure much after the fashion of the zero milestone in Capitol Square in Richmond.

Other lesser considerations also play a part. The color bearer in a parade finds his task easier if his navel is of ample proportions. But sometimes the utilitarian is carried too far. The use of the umbilicus as a receptacle for salt by those who like to eat celery in bed is mentioned only to condemn the practice. A troublesome dermatitis is liable to follow such questionable usages.

The price of preservation of this structure is not prohibitive. The repair of a hernia can usually be carried out without disturbing the overlying umbilicus. Careful dissection of the subcutaneous tissues through a transverse, or better still, a crescent shaped incision with the concavity downward, slightly above the level of the umbilicus, will usually permit

a Mayo type repair or even a Stone herniorrhaphy without damage to the navel. Preservation of this vestigal structure is not always feasible in very large hernias but the umbilicus never looks its best under these conditions anyway and the patient is readily reconciled to its loss.

We may smile at the ministerial student and his fear of the future but we must not forget that we are living in troubled times and anything that promotes peace of mind on the part of our patients is worthwhile. If we can give happiness by saving even an occasional umbilicus we should feel obligated to do so. It also makes for good public relations and if any group can use a large helping of this worthwhile commodity today it is the American surgeon.

HARRY J. WARTHEN, M.D.

The Medical Consultation

MOST PATIENTS have little knowledge of their rights, the economic factors or the medical ethics involved in calling in a consultant. The fact that physicians are careless in explaining the procedure for consultations is reflected by the frequency of complaints that grow out of consultations. A review of the responsibilities of the attending physician, the consulting physician and the patient should help us avoid some of these problems.

Usually the attending physician is the first to recognize the need for a consultant. He should explain to the patient the reason for the consultation and what the consultant is expected to do. The physician named as the consultant should be agreeable to both the patient and the attending physician. If the patient requests a consultant who is unsatisfactory to the attending physician a tactful explanation is needed to convince the patient that there is no reflection on the competence of the other physician. If the patient is adamant it may be necessary to have two consultants. When the patient is the one to suggest a consultation the attending physician should always agree, but he must insist that the consulting physician be satisfactory. The attending physician should explain the qualifications of any consultant that he suggests. Too often the patient thinks that the consultant is another house officer.

The attending physician should explain that most insurance policies do not pay for the service of a consultant and that the patient will have to pay. If the patient asks what the fee will be the attending physician may give him an estimate, if he carefully explains that this is only a guess.

The attending physician should explain both to the patient and to the consultant the limitations of the consultation. Is this a one visit consultation in an effort to establish the diagnosis and plan the treatment? Is the consultant to take over the management of one system or is he to treat the entire patient? Failure to define the limitations of the consultation may lead to embarrassment when the consultant does more or less than was expected of him.

The attending physician should list the questions that he wants answered on the consultation sheet. He should record previous events and tests that are relevant to the immediate problem. After the consultant has examined the patient he should summarize his findings and recommendations on the consultation sheet. A preliminary verbal report to the attending physician is often very valuable to all concerned but it is not a substitute for the written report.

Examination of the hospital record and writing the report often takes more time than does the examination of the patient. If this is done in the presence of the patient he is more aware of the time expended by the consultant.

As a general rule the consultant should write no orders, but all orders should be written by the attending physician. This rule may be waived by the prior consent of the attending physician, or in cases where delay in writing new orders might delay the recovery or prolong the hospitalization. It is up to the consultant to be certain that any orders that he writes will not be in conflict with orders previously written by the attending physician. The principle of one physician being in charge is essential for adequate management of any patient.

The consultant should give his report to the attending physician rather than giving a report directly to the patient or his family. This avoids the possibility of conflicting opinions.

After discharge from the hospital the usual rule is for the patient to return to the attending physician and not to the consultant for further treatment. If the condition is one that can be satisfactorily treated by only the consultant the attending physician should transfer the patient. Sometimes the patient presents himself in the office of the consultant for subsequent treatment. The usual solution for this situation is for the consultant to carefully refer the patient back to the attending physician with the statement that he will send a follow-up report. In order to preserve "free choice of physician" the consultant cannot refuse to see the patient a second time and if the patient insists on changing physicians the consultant may find it difficult to avoid taking the patient.

The prime consideration is what is best for the patient. After that comes what is best for the attending physician and then what is best for the consultant. Some of our problems come from putting these considerations in reverse order, but most come from the failure to explain why things are done in a particular manner.

James M. Moss, M.D.

Current Currents

LEGISLATIVE SCENE: Judging from reports streaming into the State Office, proponents of King-Anderson type legislation are jubilant over the results of the November 6 elections. Much of this enthusiasm stems from gains apparently made in the Senate, where backers of the social security approach claim several new supporters. This, of course, means that the House must be looked upon as medicine's first line of defense in 1963.

A recent poll (before the November 6 elections) of members of Congress by Congressional Quarterly, Inc., along with a sampling of newspaper editors over the nation, revealed that most believed Cuba to be the leading campaign issue—with medical care for the aged running a close second.

An examination of the replies of Congressmen showed that Democrats placed Medicare on the same level as Cuba, while Republicans had Cuba out front by a substantial majority. Medical care for the aged was relegated to the fourth position of importance.

DR. HUSSEY TO AMA: Dr. Hugh H. Hussey, Dean of Georgetown University School of Medicine, Washington, D. C., and Chairman of the AMA Board of Trustees, has been appointed Director of the AMA Division of Scientific Activities. A native of Washington, and a graduate of the medical school of which he is Dean, Dr. Hussey will resign from the Board of Trustees later this year and assume his new duties in 1963 at such time as he can be relieved of his responsibilities as Dean.

As Director of the AMA Division of Scientific Activities, Dr. Hussey will administer the programs of seven departments with more than 130 employees and an annual budget in excess of $2,000,000. These departments include Foods and Nutrition, Drugs, Medical Physics and Rehabilitation, Medical Education and Hospitals, Nursing, Scientific Assembly and Advertising Evaluation.

SERVICE DEPENDENTS: The Office for Dependents Medical Care has called attention to the fact that the retention of certain servicemen, beyond their normal date of expiration of active duty tours, has been directed by the Secretary of Defense. This poses many problems, among them the valid identification of the extendees' dependents who will remain eligible for certain benefits while their sponsors remain on active duty. The extension may result in some dependents being without a valid identification card (DD Form 1173). Each card carries an expiration date of eligibility which, in the case of dependents of non-career personnel, is the same as the expected expiration date of the sponsor's tour of active duty. In the past, the expiration date on the card has been the governing factor in determining eligibility still exists. Now, because of the extension, some still eligible wives and children may not have in their possession the required proof of their eligibility.

In view of the situation at hand, physicians and hospitals are being requested to exercise patience and understanding during the next several months when their services are requested by dependents of these extendees. Such dependents have been advised to present, if at all possible, tangible evidence such as official orders, allotment checks, directives, etc., to help support their claim of continued eligibility.

The Executive Director of the Dependents Medical Care Program is quick to emphasize, however, that "no claims may be processed for payment unless the dependent has provided a valid DD Form 1173 or a statement of eligibility as required by our contract."

CONVERTIBLES AND SEAT BELTS: The Cornell Automotive Crash Injury Research Program frequently receives inquiries as to whether seat belts are desirable for persons riding in convertibles. Because of the special reasoning behind the inquiries, ACIR has released a special bulletin on the subject.

The report, among other things, states that ". . . there does not seem to be any substantial difference in serious injuries to non-ejectees in convertible rollovers and non-ejectees in other body style rollovers. For example, in the intermediate speed range, 4% of non-ejectees in convertible rollovers suffered serious injuries. However, 4% of non-ejectees in rollovers of other car body styles also suffered serious injuries. Thus, it seems no worse to be a non-ejectee in a convertible than in any other body style."

Continuing, the report said that ". . . . serious injuries to ejectees are much more frequent than those to non-ejectees for both convertible and other body styles, and in all three speed categories. Thus, for convertibles as well as cars of other body styles, the very undesirable (often fatal) consequences of ejection are evident, and the margin of increased protection for non-ejectees remains.

In summary, the ACIR report states "We have no evidence that staying in a convertible in a rollover is a greater hazard than remaining inside during a rollover in a car of any other body style. Therefore, it seems to us that arguments against seat belts in convertibles are not supported. Perhaps people who have doubts about seat belts in convertibles would be less apprehensive if it is stated that, in the majority of convertible rollovers, the structure of the windshield and top prevents the car from completely crushing down; thus, the likelihood of being crushed or trapped is less than one might imagine."

DID YOU KNOW? Approximately one in five eye injuries is caused by a BB-gun, slingshot or bow and arrow.

The annual per capita consumption of candy in this country is a little more than eighteen pounds.

Society Activities . . . .

Northern Neck Medical Association.

The fall meeting of this association was held at the Indian Creek Yacht and County Club on October 25th. Speakers for the scientific program were Drs. Robert Massie, Finley Gayle, III, and Raymond Adams, all from Richmond.

Dr. Roper Travis, Montross, was installed as president, succeeding Dr. Norman R. Tingle. Dr. Harvey Goode, Kilmarnock, was elected president-elect; Dr. H. D. Hoskins, Kilmarnock, re-elected vice-president; and Dr. Horace Kerr, Colonial Beach, elected secretary-treasurer.

A dinner honoring Dr. R. E. Booker, Lottsburg, was held following the meeting. This was in honor of sixty years of practice. Present were the only three living charter members of the Association which was organized in 1905. They are Dr. Booker, Dr. C. T. Peirce, Nuttsville, and Dr. Robert Lyell, Miami, Florida. The three physicians totalled 250 years of age and 163 years in the practice of medicine. Each of the doctors had their wives with them. Dr. Booker and Dr. Peirce were presented plaques by the Association recognizing sixty and sixty-three years, respectively, of continuous practice in the Northern Neck.

Dr. Booker is continuing a practice started by a great uncle in 1848. Two of his sons, Drs. C. Leonard and James Motley, are in practice with him.

The Alleghany-Bath County Medical Society

Met in Covington on September 26th. Dr. Lester Wilson of the University of Virginia was guest speaker.

Dr. W. P. Fletcher, Covington, is the new president of this Society, with Dr. I. T. Hornbarger, Hot Springs, president-elect; Dr. George Chucker, Clifton Forge, secretary-treasurer (re-elected).

Industrial Health Conference.

The 1963 American Industrial Health Conference will be held March 18-21 in Washington, D. C. The Conference is comprised of the annual meetings of the Industrial Medical Association and the American Association of Industrial Nurses. Further information may be obtained from the Conference, 55 East Washington Street, Chicago 2, Illinois.

The Virginia Pediatric Society

Will hold its annual meeting at the Williamsburg Inn in Williamsburg, March 1 and 2, 1963. This will be a very special meeting as it will honor the years of service in pediatrics in Virginia by Dr. Lee Sutton, Richmond, and Dr. W. W. Waddell, Jr., Charlottesville.

The out-of-state speakers will include Dr. Saul Krugman, Director of Pediatrics at Bellevue Hospital, New York, who will represent a graduate of the Medical College of Virginia; Dr. Malcolm Holliday, Professor of Pediatrics of the Children's Hospital, Pittsburgh, who will represent a graduate of the University of Virginia; and Dr. Amos Christie, Professor of Pediatrics, Vanderbilt University.

Further information may be secured from Dr. William Fink, Secretary, Virginia Pediatric Society, 112 East Little Creek Road, Norfolk 5, Virginia.

News . . . .

New Members.

The following members were received into The Medical Society of Virginia during the month of October:

Raymundo P. Alfonso, M.D., Arlington
Eladio Armengol, M.D., Falls Church
Alfred Bartlett Cramer, M.D., Richmond
Frank Alexander Dick, M.D., Williamsburg
James Avery Finger, M.D., Richmond
Dingess M. Givens, M.D., Pearisburg
Nicholas Hranowsky, M.D., Richmond
Richard Dunn Marks, Jr., M.D., Scottsville
John Hampton Miller, M.D., Falls Church
Douglas Oxley Powell, M.D., Newport News
George Nicholas Psimas, M.D., Portsmouth
Richard Coleman Rhame, M.D., Alexandria
Rahim Azad Soltany, M.D., Fairfax
James B. Troup, M.D., Winchester
Dieter Robert von Oettingen, M.D., Manassas
Claiborne Gooch Whitworth, M.D., Charlottesville

Dr. J. Morrison Hutcheson,

Richmond, has been named rector of Washington and Lee University's Board of Trustees. He has been a member of the Board since 1935 and has served on its executive committee since 1940.

Committee to Review Medical Education Needs.

A special advisory committee to help review Virginia's medical education needs has been appointed by the State Council of Higher Education. The committee is composed of five legislators, two laymen and eight physicians. The physician members are Drs. Mason Andrews, Norfolk; Harry Bates, Arlington; Russell Buxton, Newport News; John Wyatt Davis, Jr., Lynchburg; William J. Hagood, Jr., Clover; Malcolm Harris, West Point; C. D. Smith, Roanoke; and John C. Watson, Alexandria.

The 1962 General Assembly directed the council to study the State's present and future needs for medical education facilities, and to what extent these needs can be met.

Dr. and Mrs. W. C. Welburn,

Arlington, celebrated their sixtieth wedding anniversary on October 6th. Dr. Welburn also had his 88th birthday on the 5th.

Dr. Hedges Has 95th Birthday.

Dr. Halstead S. Hedges, Charlottesville, celebrated his 95th birthday on September 30th. His medical associates honored him at a party given by his sister.

Dr. Fletcher Woodward,

Charlottesville, has been presented the Exchange Club's 1962 Book of Golden Deeds Award. This is another of many awards he has received for his highway safety activities.

Dr. Robert S. Hutcheson, Jr.,

Roanoke, has been appointed by Governor Albertis Harrison as a member of the State Board of Health. He will fill the unexpired term of Dr. George B. Lawson who resigned. The term runs until June 1965.

Dr. Thomas F. McGough,

Alexandria, has been elected president of the Metropolitan Health Officers Association. This organization is made up of health administrators of the District of Columbia, Baltimore, the counties of Arlington, Fair-

fax, Fauquier, Loudoun, Prince William, Stafford, the cities of Alexandria and Fredericksburg, and the Maryland counties of Prince George, Montgomery and Howard.

Dr. Aubrey A. Houser, Jr.,

Richmond, has been appointed as a staff physician on the National Aeronautics and Space Administration's Project Apollo, the project designed to place two American astronauts on the moon during the 1960's. He will be working in the general area of life support factors which involve keeping the astronauts in condition during their space flights. Dr. Houser will be located in Washington.

Virginia Medical Service Association.

Drs. Chester L. Riley, Winchester, and J. Paul Smith, Jr., Norfolk, have been elected to the Board of Directors of the Virginia Medical Service Association.

Dr. Frank D. Daniel,

Charlottesville, has been honored for his twenty years of voluntary service with the Selective Service Board. He was presented with a citation and pin in a ceremony at the draft board office.

Hospital Staff.

Dr. George J. Oliver, Jr., has been re-elected president of the medical staff of the Williamsburg Community Hospital. Dr. John S. Fletcher was named vice-president; Dr. Hugh G. Stokes, secretary; and Drs. R. E. DeBord and J. E. Dorman, executive committee members.

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Obituaries . . . .

Dr. Jeter Roy Allen,

Formerly of Marshall, died at the home of his son in Visalia, California, October 25th. He was eighty-two years of age and a graduate of the Medical College of Virginia in 1912. Dr. Allen practiced in Marshall for forty years and was active in all the town's civic organizations. He was a Mason and a Deacon in the Baptist Church. Dr. Allen retired in 1960 and had lived with his children since that time. He had been a member of The Medical Society of Virginia since 1913.

He is survived by two sons and three daughters.

Dr. Lawrence O. Snead,

Pioneer radiologist of Richmond, died October 31st, at the age of sixty-seven. He graduated from the Medical College of Virginia in 1922 and after post-graduate work at the Mayo Clinic, he located in Richmond for practice. He was responsible for the installation of the first cobalt-60 treatment unit in Richmond, having the unit installed in his office in 1960. Dr. Snead was a past president of the Virginia Radiological Society and a fellow in the American College of Radiology. He had been a member of The Medical Society of Virginia for thirty-nine years.

His wife, a daughter and a son, Dr. Snead, Jr., survive him.

Dr. Charles Preston Mangum,

Prominent Richmond pediatrician, died October 26th. He was a native of Kinston, North Carolina, and sixty-nine years of age. He graduated from Jefferson Medical College in 1918. Dr. Mangum had practiced in Richmond for thirty years and had been a member of the Board of Directors of Stuart Circle Hospital since 1937. He had been a member of The Medical Society of Virginia for twenty-nine years.

His wife and four sons survive him.

Dr. Hubert Taylor Dougan,

Richmond pediatrician, was killed when his car went out of control and overturned while on his way to work on October 29th. He made his home at Beaverdam in Hanover County but had his office in Richmond. Dr. Dougan was forty-three years of age and a graduate of the Medical College of Virginia in 1944. He had been on the staff of the College since 1945 and was assistant clinical professor of pediatrics at the time of his death. He had been a member of The Medical Society of Virginia since 1948.

His wife, a son and a daughter survive him.

Dr. Michael John Keith,

Norfolk, died October 22nd, at the age of thirty-five. He received his medical degree from St. Thomas' Hospital Medical School of the University of London in 1951. Dr. Keith had been a member of The Medical Society of Virginia for five years.

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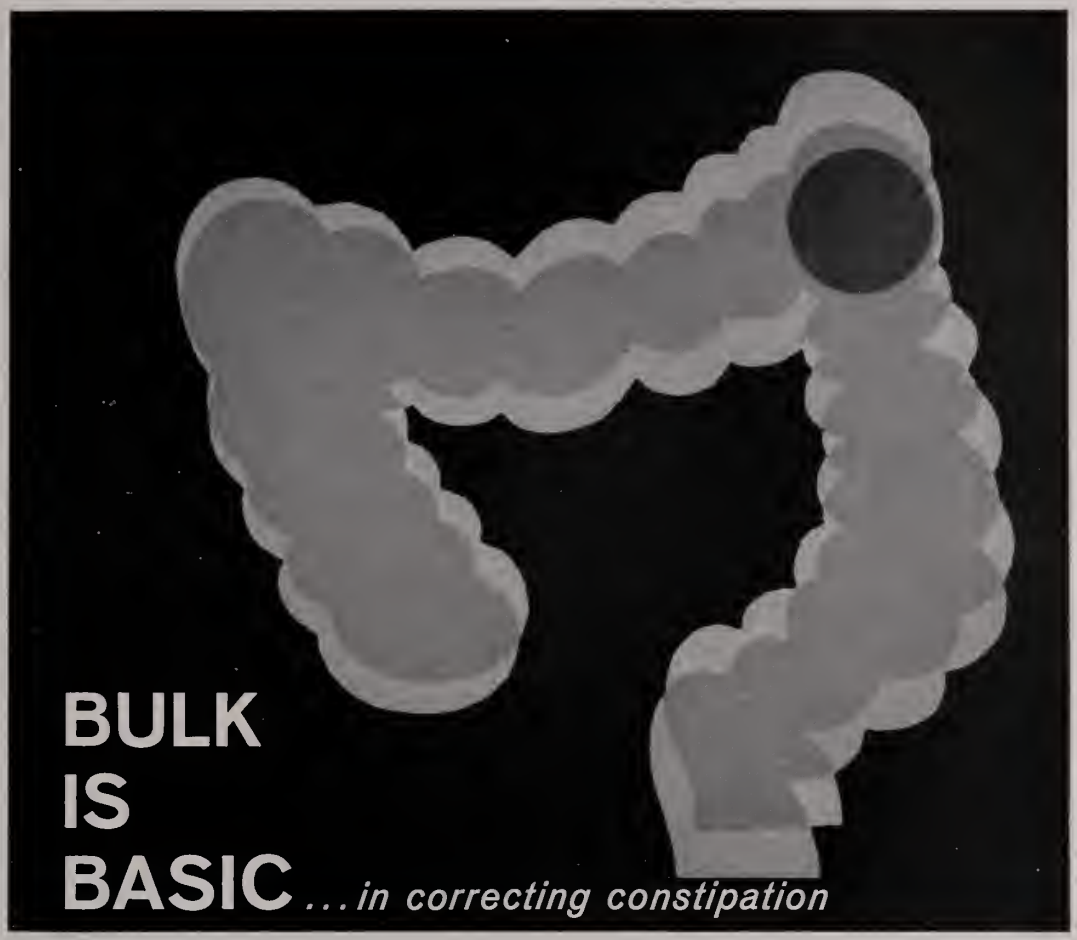
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1. Best, C. H., and Taylor, N. B.: The Physiological Basis of Medical Practice, ed. 6, Baltimore, The Williams & Wilkins Company, 1955, p. 578.

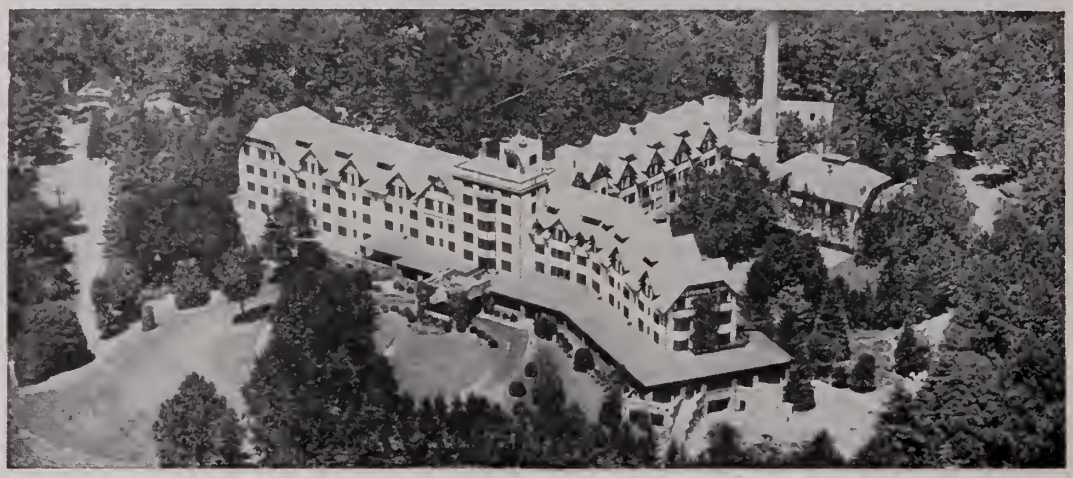
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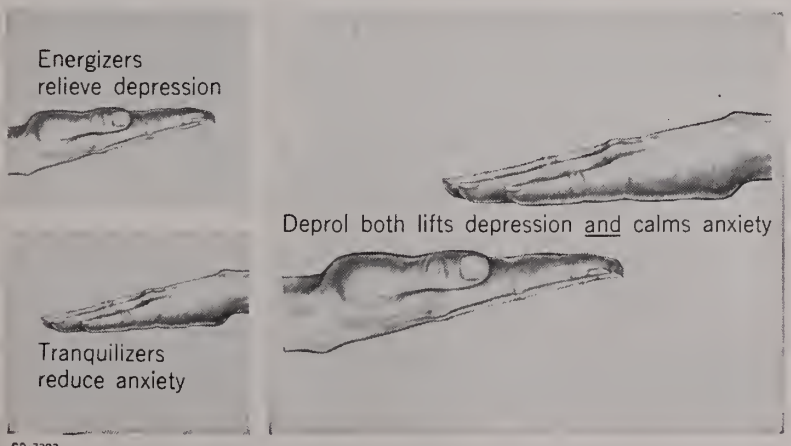
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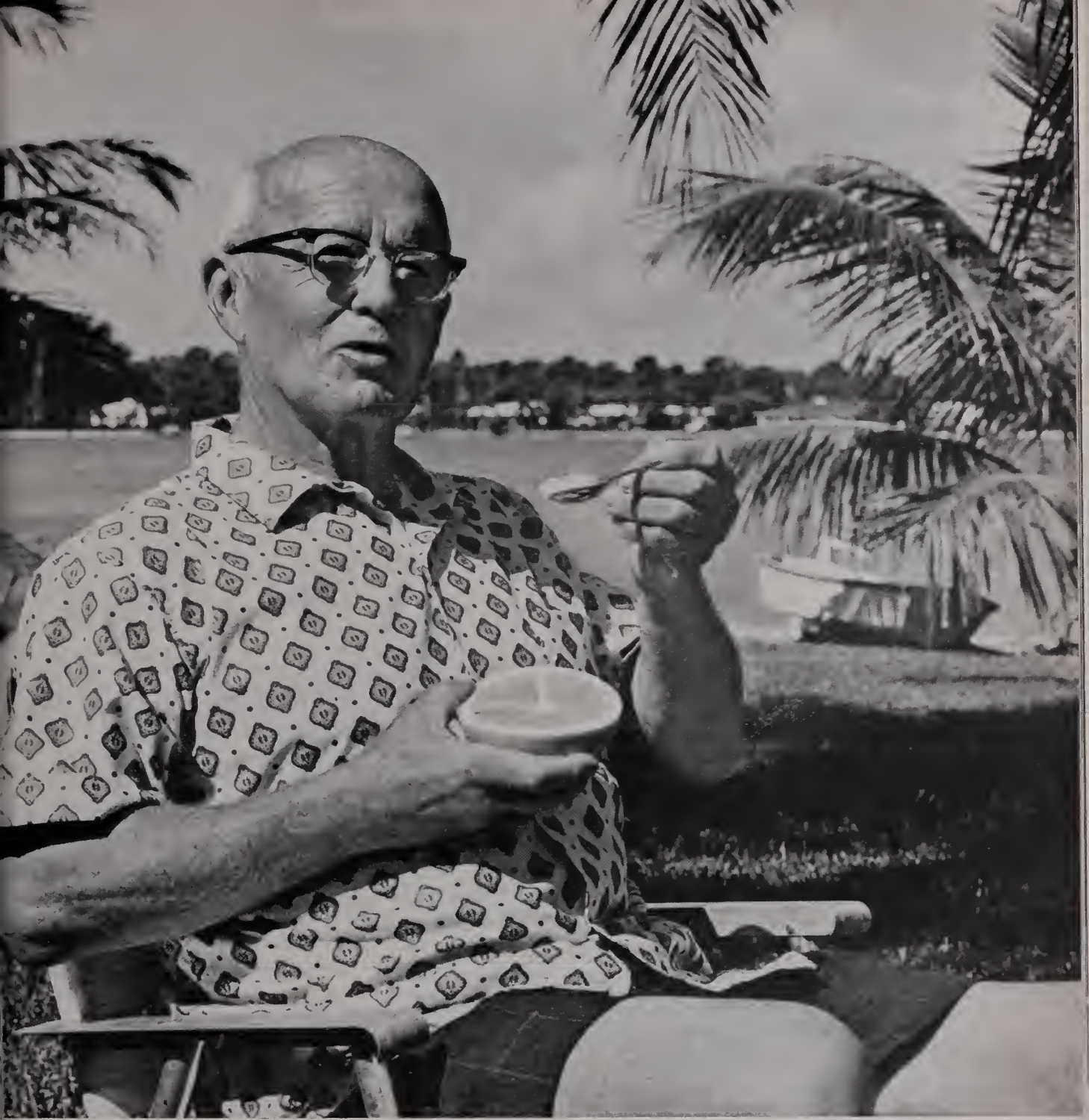
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1. *Methyl-Testerone-Thyroid in Treating Impotence*, A. S. Titeff, *General Practice, Vol. 25, No.2, February 1962, pp. 6-8.*
2. *Thyroid-Androgen Relations*, L. Hellman, et al., *The Jrl. of Clin. Endocrinology and Metabolism, August 1959.*

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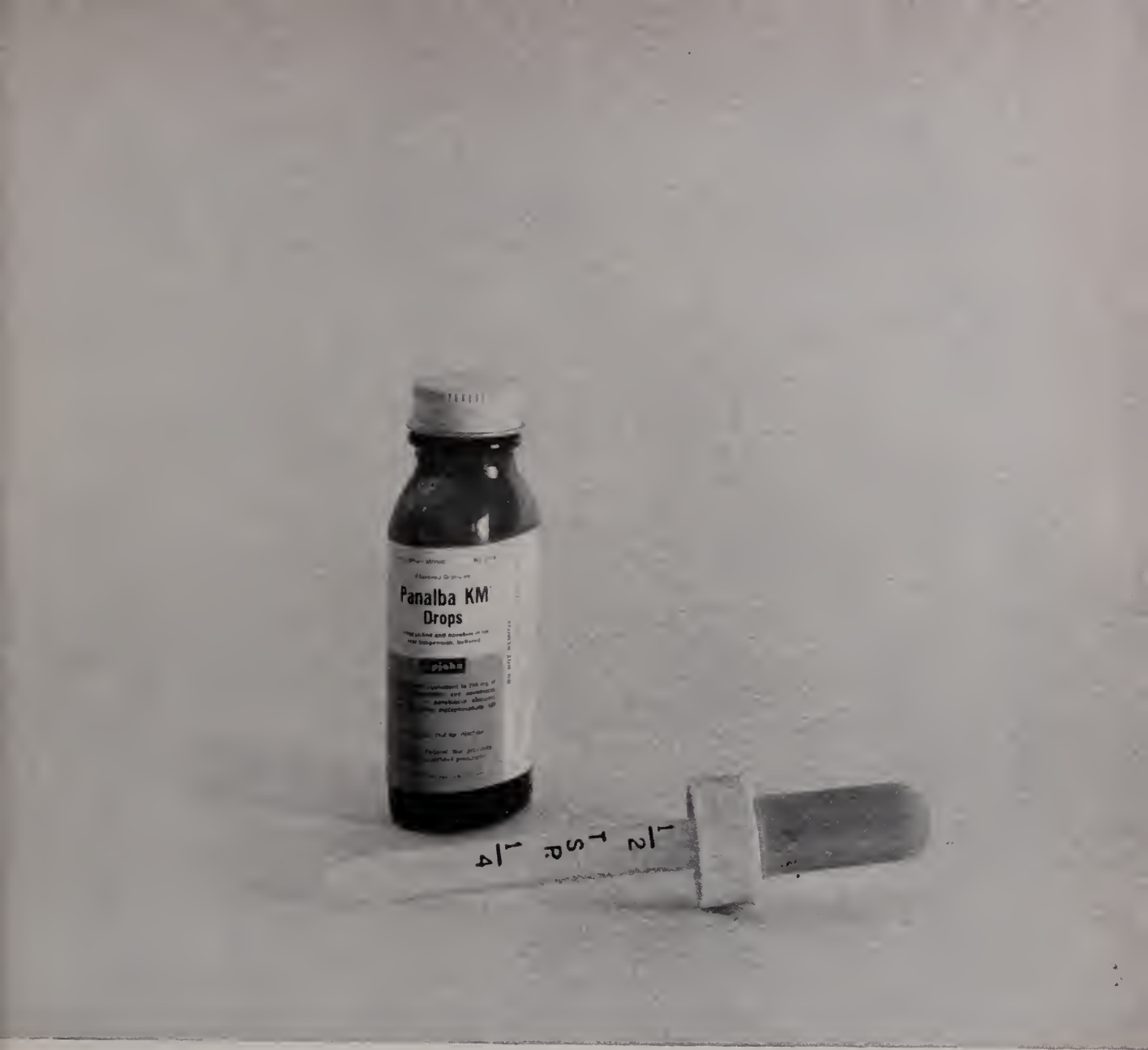
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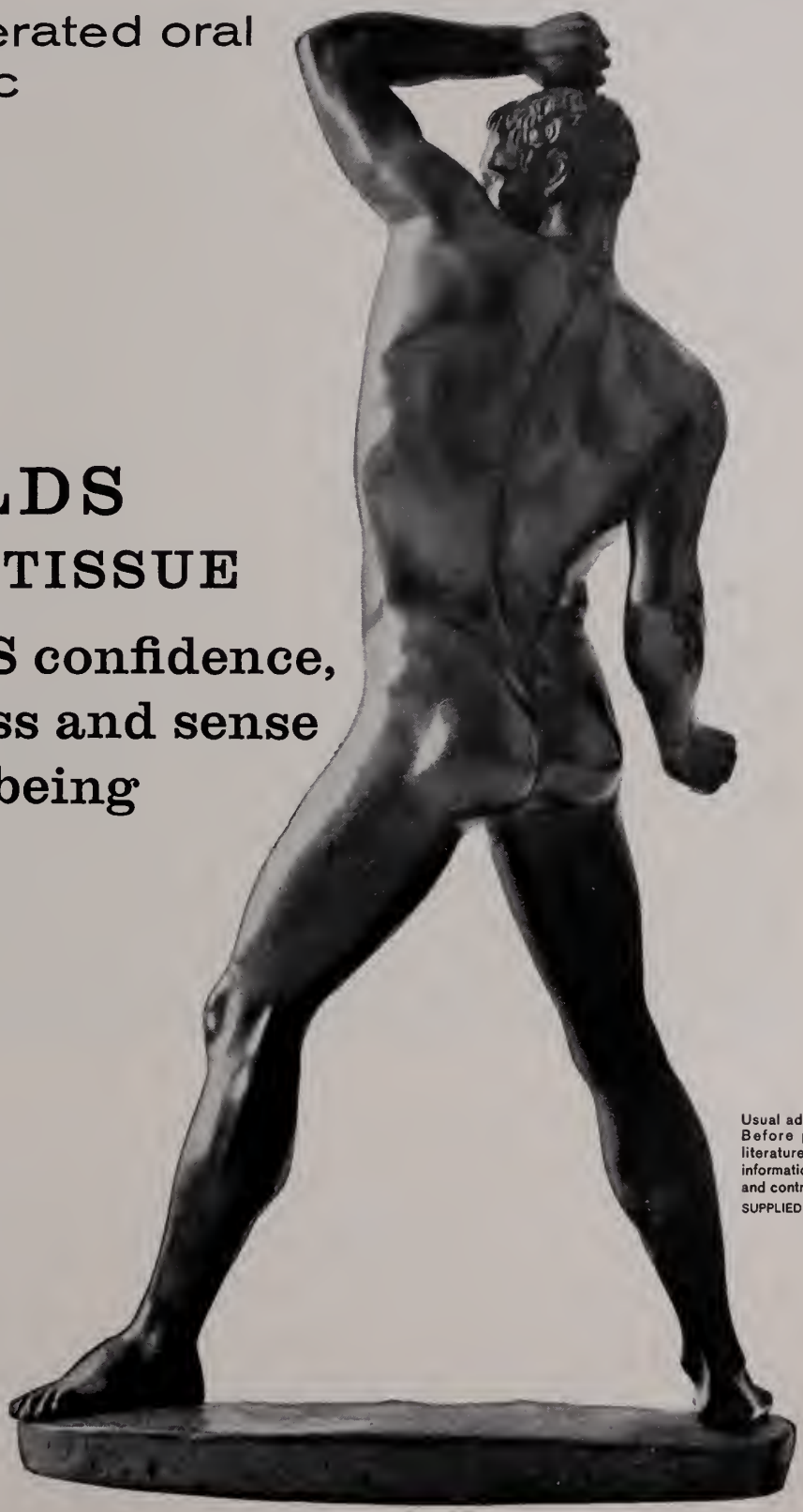
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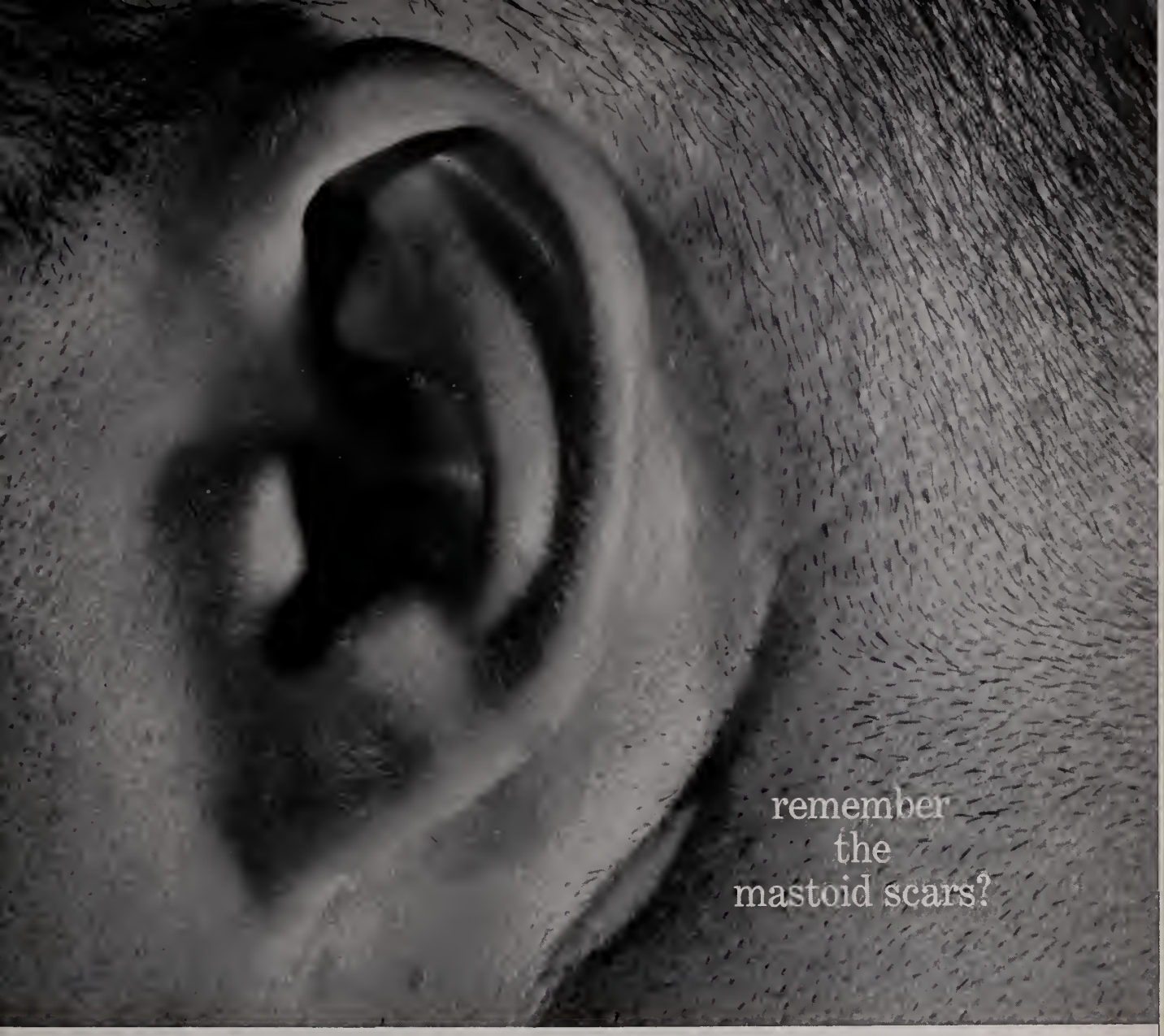


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*Asherson, N., "Acute Otitis and Mastoiditis in General Practice," H. K. Lewis & Co., Ltd., London, 1934.

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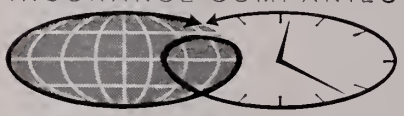
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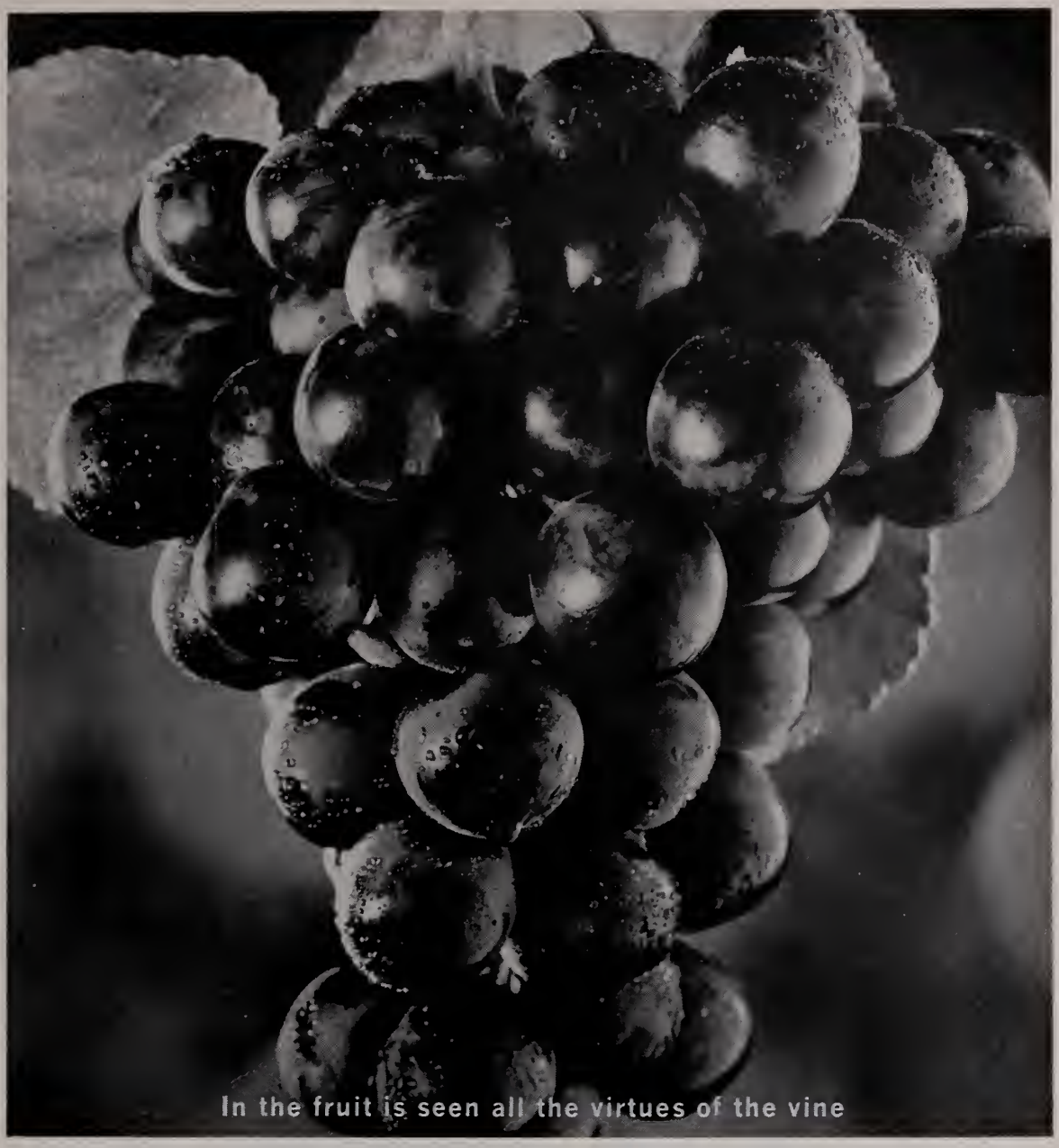
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EFFECTIVE ANTIDIARRHEAL

FORMULA: *Each 15 cc. (tablespoon) contains:*

Sulfaguanidine U.S.P. ...	2 Gm.
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Kaolin	3 Gm.
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(equivalent to 2 cc. paregoric)	

DOSAGE: Adults: Initially 1 or 2 tablespoons from four to six times daily, or 1 or 2 teaspoons after each loose bowel movement; reduce dosage as diarrhea subsides.

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